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AN ANALYSIS OF OVERLAYS.

BY A. ENESS.

THE use of overlays is now considered an absolute necessity wherever good work is under consideration. Their origin is shrouded in mystery; no exact data is discoverable that locate the first use of make-ready in connection with printing, but it would be presumption to place the matter in the realm of modern printing development.

So long as wet printing was in vogue — the use of dampened paper — the necessity for make-ready was not so great as when dry sheets came into use. A moistened sheet was more elastic than a dry one and in consequence would adapt itself to the varying planes of the type matter or engravings with a greater facility than dry and hard paper.

The subject of overlays should really take into consideration the interrelated phases of the whole process of producing inked impressions on paper from typographic matter — all relief line work, whether types, borders or engravings.

The first stage then is found in the necessity of leveling up the matter or, technically speaking, bringing up to paper. In type matter this is not much of a job because type and rules, etc., are much more uniform in height than electros, halftones, wood engravings, etc.

If greater care was used by the persons who mount blocks, a large amount of time would be saved the pressman. Almost all the underlay work that is thrust on the pressman originates in the hands of careless mounters. Why should one department do slovenly work in order to carry the responsibility for its rectification into another division? Each man (or each stage) in any given method should stand on his own basis.

Pressmen have developed great aptitude in leveling up their forms, and if the mounter, or the mounter and trimmer, coöperated more generally in bringing their blocks to "type-high" dimensions, the whole art of illustrative printing would be materially advanced and the pressman's time would be conserved in the direction of the most critical part of the make-ready — the overlay itself.

In this phase of the printing art there is a wide diversity of opinion, some workers holding that the treatment should be done between the block and bed of the printing press (*after* the block is up to paper); others contend that the proper place is between the engraving itself and the block on which it is mounted; another school holds to the overlay effect produced on the tympan or cylinder of the press as the best, and a last contingent urges the use of all of the methods, combined or separated, as the exigencies of each portion of a given subject demand.

The crux of the whole matter lies in the necessity of producing more pressure on the *black* parts of an engraving than on the white portions and a graduated pressure on the intermediate values. How much this shall vary depends on the kind and condition of ink used, the rapidity of presswork, the quality of paper, and the characteristic of the impression stress in pounds per square inch.

Unfortunately little or nothing has been done in the direction of scientific research work in this important field. It requires more than a rule of thumb method, however, to get at the fundamentals which underlie the laws of ink impressions produced by mechanical pressure.

If the impression to be made is "dead black," one should easily determine *unit pressure* for a given kind of inking condition, paper quality, etc.,

per square inch, and from this deduce the related pressure required when the printing area (an aggregation of half-tone dots, for instance) is reduced ten, twenty-five or fifty per cent from dead black.

Knowing the pressure required for various areas, it then becomes necessary to determine what thicknesses of paper or absolute changes in height of the impression surface on platen or cylinder will give the required pressure on the printed sheet opposite the printing areas, in direct proportion to such areas. In typewriter work, it is well known that the same pressure applied to a period or comma as is required for the letter "m" will send them through the paper. In short, then, the pressure must bear a relation to the area of the printing surface.

Very little overlay work is found in the decade ending with 1840. An engraver, Adams by name, spent much time on overlays for use in the production of an illustrated Bible, by Harpers, in 1842. Another person, a Mr. Alvord, used overlays extensively between 1844 and 1870. As showing how little time was put to this phase of printing, an early New York price-list quotes an extra charge of only 6¼ cents per each 500 impressions to cover the cost of overlays.

The rapid development of illustrative relief printing led to more and more thought being put to the proper tonal interpretation of the values of the grays of the engravings in the process of printing. The American Dictionary of Printing, of 1894, speaking of overlays, says: "Where it is not cut away at all is the fullest black; where one thickness is cut out, the ordinary black is shown; but when more is detached, the blanks or light spots are shown." The Century Dictionary says: "A woodcut in strong contrast of light and shade, as ordinarily treated, receives one overlay or one thickness of paper, over the parts in light gray; two over those in dark gray; three over blackish gray, and four or more over intense black."

It is interesting to note the Century definition for black and white under the division of gray: "If only about five per cent of the light is reflected, the surface is called *black;* if as much as fifty per cent is reflected, it is called *white.*"

The United States Patent Office records disclose considerable work in the line of overlay methods; among the principal systems the following are noted:

One of the first patents on an automatic make-ready was issued to Charles Sears, of Cleveland, Ohio, on December 4, 1894, filed March 30, 1894, in which a plastic coating was placed on the tympan and one or more cover sheets placed thereon. An impression of the type form was then made on the superimposed sheets and the form, if necessary, was held in contact until the material became fixed. This system had more bearing on underlay work or leveling-up problems than on overlays. It simply leveled up from the tympan by means of an overlay, instead of leveling up from the back of the form, and related to type matter especially.

On January 18, 1898, a patent was issued to James Humphrey and Burt F. Upham, of Boston, Massachusetts, which patent was assigned to Perry Mason & Co., of the same place. In this patent the overlay was made with a number of sheets pasted on the foundation sheet of the tympan, and one or more cut away at points to form a variable relief, which formed the basis upon which to impress a rubber sheet. This sheet was then covered with a paper covering, and when placed in register formed the overlay. The cutting-out was wholly manual. This application was filed August 18, 1896.

Within a day of a year after the preceding application was filed, Samuel E. Dittman, of Chicago, Illinois, filed an application, on which a patent was issued October 4, 1898. In this method an ink impression was made on a sheet of paper held on the tympan, which was then coated with flour or other pulverulent powder. The impression in viscid ink caused the powder to adhere proportionately to the area of the printing surfaces, and when this adherent powder was subsequently baked thereon it became hard and formed the relief surface of the overlay. This patent is a pioneer one in automatic overlays for engravings in which the variable surface is produced without manual dexterity in cutting out the proper portions opposite which the impression pressure is to be reduced. There are sixteen claims issued, and claim fifteen reads as follows: "An overlay having the raised surface thereon formed from a hardened plastic substance graduated in thickness corresponding to the intensity of the tones in the plate or form through manipulation of said substance by said plate or form, substantially as set forth."

On December 31, 1897, Edward Bierstadt and Theodore B. De Vinne, of New York, filed an application on a photographically produced overlay. This application was renewed May 24, 1899, and issued October 3, 1899. In this method a photographic print was made from a positive of the subject on a sheet of bichromated gelatin, which was then developed into a relief surface by immersion in cold water by the well-known swelled-gelatin process. Afterward a plaster cast was made therefrom and an overlay mold was then made from the plaster matrix. This overlay was graduated in relief proportional to the lights and shades of the subject and is an American

pioneer in the adaptation of photographic means to the production of a vari-relief overlay.

On March 31, 1899, J. W. Blackford, of Cheboygan, Michigan, filed an application that was patented May 1, 1900, in which he took an ink impression on a tympan sheet and dusted on a mixture of emery powder and soluble blue. After the surplus was removed a protective sheet was placed over it, the whole constituting an overlay. The emery powder was applied selectively to such parts of the impression as in the judgment of the operator required extra pressure.

Mr. J. A. Vogel, of Berlin, Germany, filed an application on May 14, 1900, which was issued January 1, 1901, on a method of producing photographic overlays. In this system an ink impression was made from the engraving which was to be made ready on a sheet of transparent material, which then became a positive from which a negative was made on a suitably coated and sensitized plate. This plate was then etched in any suitable manner, liquid gelatin poured into the depressions and covered with a supporting sheet to which the gelatin adhered, as soon as it became "set" in the etched plate; it was then removed and when dry formed the relief overlay. Producing the gelatin relief is very similar in principle to "Woodburytype" production.

A. S. Allen, of Boston, Massachusetts, filed an application on August 29, 1901, and received a patent thereon October 14, 1902. In this patent a method of combining an impression on tympan sheets and an overlay sheet placed thereunder is described. A foundation sheet is covered with carbon or transfer paper, a soft tympan blanket, several sheets of paper and lastly, a holding sheet. An impression is made so as to mark through the carbon on to the foundation sheet. The sheets are then loosened at one edge, and guided by the impression left by the carbon a cut overlay is then made thereon by pasting on paper to various thicknesses. The blanket and cover sheets are again fastened, the whole forming the overlay.



ROMANY RYE.

The previously described methods are all of the indirect type, and a pioneer in a direct method is J. E. Gilbert, of Chicago, who on October 11, 1902, applied for a patent, which was issued to him on July 19, 1904, on an improved overlay, in which an ink impression is made on a thin metal sheet. This impression is then dusted over with a resinous powder which adheres to the metal wherever there is a trace of ink from the previous impression. The plate with its adherent ink and powder is then heated enough to cause the resinous powder to firmly stick to the metal plate and also resist the action of an acid bath, in which the plate is immersed. The acid eats away the metal in the high lights to a greater extent than in the middle tones or shadows, hence a metal relief for immediate attachment to the foundation sheet of the

tympan is produced, without recourse to any intermediary steps whatever.

On March 4, 1903, an application for patent was filed by J. E. Rhodes, of Boston, Massachusetts. This application was issued on February 16, 1904. The features of the invention consist in a blanket made up of elastic material, having its surface serrated by V-shaped grooves, crossing each other, leaving a series of pyramidal projections.

Mr. Rhodes's first patent was issued on July 22, 1902. It was filed July 27, 1897. In it he describes a blanket made of a series of elastic projections which are slightly rounded at their upper ends and also slightly conical.

The effect of these blankets was to cause the elastic projections to spread out or broaden more or less as the pressure of the printing surface varies, and thus produce an overlay effect.

On October 7, 1904, C. W. Combs, of Washington, D. C., applied for a patent on overlays. This was issued on January 2, 1906. It is also of the direct type. A sheet of celluloid is put on the tympan and a heavy impression taken thereon, without inking the engraving. An embossed effect is produced in the softened film. The engraving is now rolled up with a varnish ink and the previously embossed sheet receives an inked impression in register with the first. This covers the bottom of all the depressions with a film of ink that becomes quite hard when dry. The embossed film is then subjected to any process that will remove the uncovered parts to whatever depth may be desired. A sand blast is described as adaptable for this purpose. A relief overlay results, in which each minute part of the engraving has a corresponding raised part opposite thereto in the overlay.

An interesting German method was recently described in the January, 1906, "Archiv für Buchgewerbe." It is the invention of Messrs. Lankes & Schwärzler and it consists in utilizing a chalk-coated film on the tympan. This film becomes the overlay. It is treated as follows: A sheet of highly glazed paper is placed on the tympan and an impression made thereon with acid-resist ink from off the engraving which is to be made ready. Over this is placed the chalk-coated film and a few protective sheets and other impressions are made on the superimposed sheets so as to produce an offset from the glazed paper on to the under side of the coated film. The cover sheets are then removed and another ink impression is made on the "chalk film," this time on the upper face. There are now two impressions thereon, both in register. The film is placed in weak acid, which destroys the cohesion of the uncovered chalk and does not penetrate the parts held together by the action of the ink. A double surface relief results therefrom.

It has been proposed within the last year to form the overlay in the half-tone plate itself. Some specimens that have come under the observation of the writer show an appreciable change in elevation between the high lights and the shadows and they give evidence of "staging." The selectivity of the variation of printing plane is evidently not automatic, but is selected by the operator by painting out in the usual staging manner.

The condition of the black dots as seen under a microscope is not up to the best half-tone practice and leaves much to be desired in clearness of outline and freedom from being broken down.

It will be seen from the résumé of some of the principal methods that not a few of them inadequately provide for a variation of pressure proportional to the printing area.

The Société des Arts Graphique, of Geneva, Switzerland, are putting out overlays with their half-tones, known as "Sadag" overlays.

This subject requires considerable research to place it in the rank where it belongs, and a careful analysis of the relation of unit pressure and unit area will give valuable data from which to draw important conclusions.

Written for THE INLAND PRINTER.

BRITISH AND AMERICAN SPELLING.

BY F. HORACE TEALL.

A BOOK recently published, entitled "The Preparation of Manuscripts for the Printer," says: "The international copyright law has worked a curious change in the orthography of some American books. Until lately American publishers used the shorter and simpler form of such words as armor, honor, labor, omitting the *u* common to English spelling; in words like civilize, utilize, etc., the American form -ize displaced the British -ise. Now, however, some American publishers have gone back to the old-fashioned form so tenaciously cherished by the British. The reason for this is found in the fact that American books have invaded England."

It is a fact that many books are now made in the United States to suit the British markets, and that the one necessary departure from custom consists in attempted conformity to British orthography. Another noteworthy fact is the one that induces this writing. It is that American attempts at Briticism are usually carried too far. They properly include armour, honour, labour, and other like words, but commonly extend to too many other words, adding the letter sometimes where it

is a mere error. The *Bookman* magazine uses the spelling that is called British, and evidently its editors depend on a general direction to the printers, and get a result that goes beyond their intentions. A while ago some one wrote to these editors asking why they spelled so many words differently from what the writer was accustomed to in other publications. In answering this letter the editors said that the proofreaders went further than their instructions intended, and thus admitted editorial inattention beyond the merest generality. Such



FREDDIE CHANNEL, AMONG THE THIRTY THOUSAND ISLANDS OF GEORGIAN BAY.
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

is likely to be the result in similar circumstances, and the chief reason is that some changes have been made in British practice that many of our proofreaders do not know.

Historians of the language say that orthography was practically settled by Johnson's Dictionary, though it is commonly admitted that Dr. Johnson was not specially qualified to settle practice in this respect. Undoubtedly his work exercised great influence, but its influence was not great enough to prevent some improvement. For instance, he wrote all such words as music, physic, with an additional terminal letter, as musick, physick. For this there never was an adequate reason, and in a comparatively short time the unnecessary letter was universally rejected.

One of the best-known differences in spellings that have been called British and American is seen in words ending in *-ize* and *-ise*. Until very recently practically every British book or periodical had materialise, organise, patronise, and nearly all others with this suffix were spelled with *s*, while actually every American one had materialize, organize, patronize, etc. Twenty years ago this was so far true that the Century Dictionary noted in connection with each word of this kind that it was also spelled with *s*, and the Standard also recorded both spellings, although Webster's International gave none with *s*.

But this difference has now disappeared, and the Oxford Dictionary gives all these words with *z*. So little is the old-time English form used now in Great Britain that even the fullest and most historical English dictionary rejects it altogether, except in the quotations. A recent English book, "Author and Printer," whose author consulted many philologists and printers of high standing on

such questions, says with each entry of such a word, " not -ise."

All this means that the old difference has disappeared, and should no longer be made by any one, though nearly all American work that imitates British practice preserves it, because the proofreaders have not learned that British practice has changed.

In the book first mentioned above a list of words is thus introduced: "Of the various classes of words whose spelling is unsettled, that are affected by the movement for simplified spelling, with which an author should familiarize himself, several are given below, characterized as American and English." The list contains about 500 words, each shown with two spellings, and includes very few in which the difference is actually national. Some of those called American are abridgment, accessory, accouter, analyze, anemia, ascendency, atropin, bastile, caffein, calif, center, chlorid, despatch, edile, enroll, glycerin, harken, impanel, kidnaped, lacrimal, licorice, nilgau, offense, partizan, raja, rime, silicious. These and many others are not peculiarly American spellings. They would be better classified in some other way, most of them as phonetic spellings, favored by as many Englishmen as Americans, especially of those who have given the question of spelling-reform any close attention.

The first word, abridgment, has abridgement in line with it under the heading " English." Naturally, that will be taken as an assertion of national difference. But in fact the first form is the only one in use in either country, unless an occasional somebody may use the other because he has the feeling expressed by Dr. Murray when he said of " acknowledgement " that it is " more in accordance with English values of letters."

Words like accoutre, centre, theatre, are not peculiarly English (or British) in this form, although it is true that the change to accouter, center, theater, etc., was made by an American and has found support only in American usage. Many Americans still use the *-re* spellings, but the others are never used in Great Britain.

Chemical words like atropine, glycerine and chloride are not peculiarly English in this form, and it is doubtful whether atropin, glycerin, and chlorid are properly or adequately called American, though it is true they were first adopted as a systematic class for the making of an American dictionary.

Bastile is an Americanism in this form, and the only proper and reasonable spelling anywhere is bastille. It is a French word, and there is no reason why it should be mutilated, especially by those who would spell phonetically, because the shortened form misrepresents the sound, and would naturally indicate phonetically a sound other than the right one.

Despatch is said to be American, but might far more truly be called English. Dispatch is in fact more used now in both countries.

A thing about as strange as could be is the classing of " rime " as American. It is in fact one of the oldest English spellings, in use long before America had any distinctive spelling. It is equally strange to see " rhyme " called English as distinguished from American.

Publishers and authors who wish British spelling used in their work should have the manuscript prepared accordingly, or at least provide a full list of the spellings that might be made wrong. A mere direction that words in general are to be spelled as they are in England is never sure to produce a good result. There are differences in English usage, just as there are in American.

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. II.— BY N. S. AMSTUTZ.*



THIS second number is properly retrospective to a considerable degree. It is always a satisfaction to look back and, even from an advanced elevation, note the various steps that have led to such position. To be self-sufficient and wholly satisfied with the immediate present is not evidence of a proper breadth of development or indicative of a rational growth in the technic of any subject.

The master of the engraving field, before the advent of photoengraving, was the xylographer, or as we know his art, the wood engraver. He had held the illustrative field for years unchallenged. He also called to his aid photography, in the latter days of his greatness, to directly copy his commercial subjects on to the wood block.

The expert technic of the engraver translated the tone values of the subject into printing points or lines by grooving the surface of the block with a V-shaped tool in variable directions at variable lines per inch and to variable depths. On the variable depths, to a considerable degree, he was dependent for his medium of interpretation in which to translate the interrelated effects of light and shade.

In looking backward from present-day practice, wherein the formation of depressions on a printing surface is guided optically through the interposition of a screen and sensitive plate in the camera and the resultant negative and acid resist

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.

print on metal, one is reminded of the marvelous skill of an expert xylographer.

It is a matter for congratulation that the popular magazines are furnishing their readers with art prints from wood engravings. By this means the younger generation can know of the beautiful effects produced by this now little understood craft.

The result when an engraver only perfunctorily grooved a block was not always as happy production of a master mind from mere duplication by extraneous means.

Enough for this digression. Present-day methods of commercial and scientific illustration do fill a large want in a most satisfactory and efficient manner. The demands of modern conditions are such as to require the multiplication of hands; this is attained by the camera and its accessories.

The closely related methods of lithography, photogravure, and collotypy in all its various



CANOEING IN ALGONQUIN PARK.
OTTAWA DIVISION, GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

as when an artistic instinct was combined with mechanical technic to control the relation of groove to ridge and of dot to white and black. Xylographic reproductions — artist-produced — are analogous to artistic reproduction by means of dry-point etching, each depending on individual skill.

Because of the fact that there was no camera or other intervention between the artist mind and the finished result, one finds overwhelming characteristics of breadth of treatment, vigor of conception and brilliant or somber interpretation that will for all time differentiate the actual personal guises, occupy a field distinctly their own, so they can not now be referred to, except in passing.

In wood engraving the eye and intellect of the operator controlled the graver by a greater or less elevation, or more or less pressure thereon, to form grooves of varying depth and width, and, as stated, at variable distances apart and in various directions. The "control" was the skill of the operator. Among some of the first attempts in the direction of automatic control may be mentioned a mechanical method of 1881, patent filed October 25, 1880, which used a suitable sliding base, under the control of a hand-operated feed

screw. On this base was secured a carbon relief, and adjacent thereto a material on which the engraving was to be made. Above the base was a support for a tracer and graver slide. The tracer rode up and down over the carbon photo as the slide was moved backward or forward, its movement was transmitted to the graver, which was V-shaped, through a pivoted frame mounted on the slide. This frame was spring-pressed so as to hold the tracer and graver in working relation. At the end of each rearward and forward movement the base was moved the distance of one line so that at the next stroke of the slide a new portion of the photo relief will be passed over and another line engraved. The up-and-down movement of the graver made it cut deeper or shallower in the metal sheet, in parallel lines, thus engraving the photo. The photo relief did the "thinking" as to where a deep or shallow groove was to be engraved.

Another method, of 1881, patented by F. E. Ives, filed August 9, 1880, also utilized photography, in that a photo relief was made and a plaster cast taken therefrom. On this plaster cast an ink impression was made from a block of elastic material. The face of this block was serrated by V grooves. It was inked and placed on the plaster cast and subjected to a uniform pressure. Where the surface of the plaster cast was slightly raised, the pressure was greater than in the depressions, and consequently the V ridges, being elastic, were flattened more or less, thereby producing a variable breadth of impression. When the elastic block was removed, the white surface of the plaster was covered with parallel black lines of varying widths. This was then photographed as though a line drawing, and subsequently etched. If the face of the elastic surface was serrated by intersecting grooves, the impression was one of varying-sized dots, instead of parallel lines.

A third method, of 1891, was electrical; it also utilized a photo relief. A tracer was pivoted to a traversing carriage and caused to ride over the photo relief, which was secured on an adjacent drum. This tracer controlled resistances in an electric circuit, which through the control modified the movements of a magnet that actuated a V-shaped graver, suitably pivoted on another traversing carriage adjacent a second drum, on which was placed a wax film. The two drums rotated synchronously and the graver formed V grooves in the wax of varying widths and depths. The wax film was prepared for printing by making an electrotype therefrom. By the use of stronger currents, engraving on metal sheets became possible.

The difference between this method and the first one named is that one was electrical and the other mechanical. This mechanical process encountered serious difficulties, in that the tracer riding over the photo relief received all the engraving stress on its minute tracing point. This played havoc with the essential element of the process. The engraving stress reacted on the tracer and caused it to groove the photo relief, destroying its translation.

A fourth device, of 1883, also electrical, utilized an ordinary negative, by causing it to control, in conjunction with a source of light, a selenium cell. This varied its resistance proportionally to the intensity of the shading of the negative and thereby controlled a graving tool working on another surface.

In all of these methods, it will be noted, photography takes the place of the former wood engraver's skill, while, however, utilizing the same fundamental principles of a V-shaped translating device, in one form or another.

A fifth method (the present half-tone process), came into vogue, thanks to the scientific researches of Mr. F. E. Ives, in which, by photographing through a screen, the subtle variations of light and shade of the object were translated into definitely related opaque and transparent portions of the negative, having variable areas of opacity and reciprocal transparent portions — an optical V. This negative on which photography, automatically and in a selective manner, depicted a "key," controls the action of a "chemical graver" on a metal surface so as to produce depressions of greater or less depth and larger or smaller area, is also analogous to the manual skill of a xylographer. What the mind was to the hand graver, the "screen" negative is to the chemical "graving" medium.

It will be quite apparent that all of the methods leading up to the existing half-tone process were of necessity based on the interpreting value of a V-shaped medium, mechanical, electrical or optical.

In the sixth method, of 1896 and 1903, a variable-surfaced photo relief (or carbon print) made from an ordinary positive, without screen intervention, is placed upon a drum, and *over* this a pyralin, celluloid or other elastically resilient sheet is secured. A V-shaped cutter is firmly held on a traversing carriage adapted to move adjacent to the drum. When the cutter is adjusted to the proper depth, the drum is set into rotation, and the graver, directed by the gelatin relief *under* the pyralin, automatically cuts deeper and wider or shallower and narrower grooves with ridges standing between, varying in width inversely to the grooves. These ridges, similar to those of wood engravings, form the printing surface, which may be used direct or be electrotyped in the usual man-

ner. Figs. 5 and 6 of the March number were engraved by this process.

To S. H. Horgan belongs the honor of making the first half-tone reproduction for a daily newspaper, which was printed in the *Daily Graphic*, of New York, March 4, 1880.

Meisenbach, of Berlin, Germany, did much research work in developing the law relating to the distance the screen should be placed from the sensitive plate. To early workers "Meisenbach cliches" were synonymous with present-day half-tones.

The half-tone method, using accurate Levy screens, has developed most skilful workers who produce marvelous results, and though the process is based on the most interesting scientific laws, unfortunately the average processman is concerned to a maximum degree with the purely practical aspect of the art and does not devote as much time to the theoretical and scientific phases of the method he utilizes daily as he might do, greatly to his advantage.

It does not seem to be so much a lack of desire to know, as a strenuosity of application that precludes the entry of very little but the commercial into the treatment of subjects as they pass through his hands. Yet one must say, to be just, that the commercial requirements are very exacting as to results, and to this extent deserve credit for holding up the quality of the output.

On the other hand, it is possible for the processworker to get away from a too-close adherence to an impersonal method to one that is replete with ever-recurring interest, because one may know definitely the laws of effects of the unit areas utilized, and from those judge intelligently as to the results that should come from any given effort.

The method in vogue, of judging results principally by the finished product, is all right so far as the end is concerned, but it is very unscientific. How could a mechanic produce results commensurate with any one's conceptions by weighing so much material, of certain definite proportions, etc., made up of various groups of similar-shaped pieces and machine the lot without knowing exactly the definite detail steps and dimensions of all the consecutive elements of his construction?

The processworker, thanks to an inherent



CAMP OF THE IRON CITY CLUB, GEORGIAN BAY.
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

artistic ability, can and does proceed to splendid results without knowing definitely for himself the correlation of the various mathematical elements that have to do with his screen, distance, related to focal length of lens, shaped diaphragms, etc., that have to do with the optical part of his profession; or the equally important ones, of the relation of size of dot to unit area, the rate of side action to the resultant printing surface, the rapidity of acid action, the relation of depth to the contiguity of adjacent edges of the printing points — printing quality — and the percentage of broadening after the engraving reaches the press under the best printing conditions. These are all vitally important to the processman. In the March number of THE INLAND PRINTER was shown some results of careful analyses of half-tones and prints made therefrom. These are all important, in order that one may judge intelligently as to the best procedure in "staging" his work.

However varied the phases of anything may be, a familiarity with fundamentals makes one a master of any situation that may arise. Such a familiarity broadens one's mental capabilities and develops resourcefulness.

The specimens shown have been described in detail, and it is thought will be of interest to the every-day worker, as well as persons devoted to the theoretical phases of the subject only. It has been the aim to present the various physical characteristics of half-tones in as popular a vein as possible so as to divorce the treatment from the purely theoretical, and to this end the deductions made and details given in the March issue, were made from the engraver's proofs and the engravings themselves of the specimens shown.

(To be continued.)

TRADE-MARKS AND THE PRINTER.

It would be difficult to exaggerate the value of a good trade-mark, and yet how frequently is one confronted with the fact that its importance and commercial usefulness as a definite mark for goods has not been realized. Few dealers, however, handle more trade-marked goods than do stationers, but printers are particularly remiss in the use of a trade or press mark to distinguish their work. The commercial earning power of an advertised trade-mark with a good standard of make and of value behind it can not be overestimated. A manufacturer may make a superior line of goods and sell them freely and satisfactorily to jobber or to retailer, and consider his work well done, but this very excellence of production has little salable value as an asset in his business without the use of a trade-mark. The distinctive value of a trade-mark lies in the facility with which goods are known and handled by the trade, and it should act as a commercial safeguard, under adequate statutory protection, against the unscrupulous imitator. Yet the printer apparently does not realize its great advantages, or at all events takes little heed of them.— *British and Colonial Printer and Stationer.*

Written for THE INLAND PRINTER.

MODERN BOOKBINDING.

BY A. HUGHMARK.

NO. XIII.— BLOCKING AND STAMPING.



THE embossing and inking machine shown in the accompanying illustration is a necessity in any bindery doing case-binding. This machine is equipped to do hot stamping for gold, colored leaf or metal work, or it can be used as a press for colors. When used for inks it must be cooled off completely. If work of this kind predominates, it is better to have one or more stamping presses for not impressions only, without ink attachments. For inking, a press of the Colt's Armory type is the most desirable.

An embossing machine can be supplied with either steam or gas heads. When inking is done on the same machine, steam only should be used and the head so fitted that the steam can be shut off and cold water run through the head instead, thus cooling off the machine in twenty minutes. With gas heat, it will take several hours to cool.

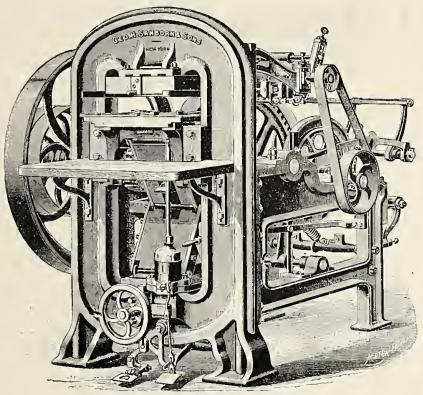
A special grade of ink, stiff and quick drying, is made for bookbinders by ink manufacturers. If a light color effect is desired on dark cloth covers, it is better to use colored leaf. This is a foil imported from Germany and kept in stock by the supply-houses. The covers are sized if dry and the leaf laid on the same as with gold, after which the cover is fed into the stamping machine and given a hot impression. The surplus leaf is then brushed off with a stiff brush. The smaller remaining particles and dust are next removed with a rag.

It is necessary to blind-stamp (hot) before inking, to obtain a clear impression. Sometimes two impressions of ink have to be run in order to cover well. Black and dark inks can usually be run in one impression when blinded. In stamping covers with gold or aluminum and ink, the metals are laid and stamped first. Designs are sometimes scorched in on the stamping-press, but to do that, gas heat is necessary. The die should be nickel-plated for that kind of work, and even then it may be necessary to swab it off now and then to keep it from filling up.

Embossing, or raised stamping, is done by using two plates. A brass die is cut with lettering or other design intaglio. This plate is locked up between the jaws of the head and from it a bas-relief plate is cast in plaster. Between these two plates the cloth, paper or other material is then embossed. The impressions that appear uneven, stronger in one place than in another, are made ready by underlaying on the bed of the machine. Pieces or strips of wrapping-paper are glued down

on the bed, or on an impression board stuck down on the bed, in the spots where the impression is weak, until it is brought up uniformly. The front cover and backbone of a case can be stamped at the same time, if not too large for the bed. To do this, it is necessary to glue a strip of board on the bed corresponding to the backbone and equal to the thickness of the board in the cover.

Several iron plates should be made for each machine, on which to fasten dies. Suppose one cover has gold and three colors of ink; it will take four dies with as many separate impressions.



EMBOSSING AND INKING MACHINE.

Each die should be on a plate as long as the job is running, even if it has to be taken out a number of times in order to put in the others to complete covers. Then again, other jobs may have to be run between, and these require dies and plates. These plates can be made of various sizes, but they must be of a thickness of one-half inch and at least one must be the full size of the jaws and depth of the head. The dies belonging to a job are placed on the cover on which they are to be impressed and a suitable plate selected. This is covered by gluing on one side a stout piece of backing-paper or heavy wrapping — preferably coarse — using fish glue. The next move is to mark out the place where the die is to go and attach it with the same adhesive. If the die is smooth and bright on the back, it is better to run some scratches over it with the point of an old knife or other sharp tool. When the die is glued on, lay a board over it and turn it over; then insert the plate between the jaws and tighten up. The bed should be raised up by hand until it is tight up against the die and then left to bake.

From each job a pick-up board should be taken and put away, so that if the same job comes back, the stamp can be fitted right into the impression of this pick-up and shoved into the press, saving all measuring and setting time. When only one die is on the plate, the gages on the bed are moved to bring it into the desired position without much measuring. If there are cover and back dies on the same plate, the spaces will have to be accurately measured and marked off on the plate before attaching the dies. The gages in this case can only be used to square the impression on the cover.

Gold or colored leaf can be stamped on cloth covers, if not too dry, without any sizing. The covers are rubbed with a pad saturated slightly with olive oil, after which the leaf is picked up on another pad and laid on. A strawboard or paper gage can be made to guide the operator in placing the leaf. It is estimated that the thickness of a gold leaf is .280 of an inch, so considerable dexterity is required to cut and handle it quickly and without loss. Much oil should be guarded against, as it will stain light cloths. On cover-papers only the very least that can be imparted to the cotton or pad should be used.

When a size is needed for gold on any material, albumen is the best. It should be dissolved in cold water a few hours before using, adding a spoonful of milk to the pint to keep it from frothing in the sponge when washing over the covers. Silk or satin ribbon can be sized the same as other materials, but oil must not be used when laying the leaf. After stamping, the ribbon can be washed off with a clean sponge and water; or, better still, with gasoline, leaving the gold intact and the ribbon clean.

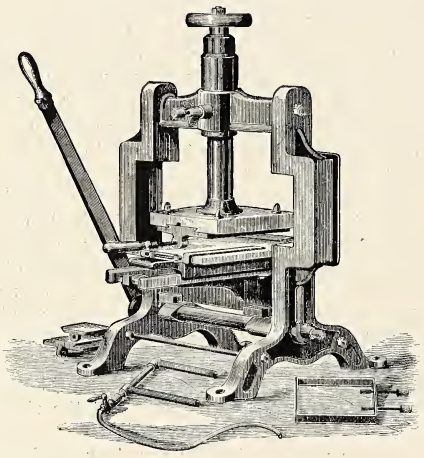
Calf or morocco leather for finer grades of work should be blinded in first and then the size penciled in with a camel's-hair brush, the leaf laid on and stamped in. For aluminum or composition leaf, some use fish glue for size, but this is not advisable, as it makes the covers sticky and dirty looking. A better size can be made by dissolving a cake of English gelatin in a half-pint of water. This must be done by letting it simmer on the stove. The size should be used warm.

Another good size is shellac. It is dissolved in the same manner in the proportion of about one pound to the quart, to which is added four ounces of borax, which also is dissolved. The white-flake shellac is the best for this purpose. This size will keep indefinitely. These last-mentioned sizes are for other metals than gold, on fabrics only.

Leather to be stamped, not made up, as for labels, loose backs, etc., should be either tipped on strawboard or have special gages. A soft piece can not be fed into place unless it is temporarily mounted. Gages for ribbon or leather pieces that will curl up when sized can be made by taking a firm piece of board of suitable size which has two

edges squared at right angles. On this board glue four finger strips under which the material to be stamped can be placed. These finger gages should be on the left and the side away from the stamper, so that he can shove this board containing the strip guides against the gages on the bed of the machine. For short runs, electrotypes on metal bases are good enough, but they must be provided with thick shells and well backed up. Cover-papers stamped in metals must be sized and laid on and run off while still damp in order to get good results.

A lettering and stamping press for jobwork is another very useful machine, where the amount of



LETTERING AND STAMPING PRESS.

work warrants its use. With it lettering can be done and small runs of stamping or inking (this by rolling up the ink on the form by hand). The head can be raised or lowered to admit a book of six inches being put in to be stamped. It has a sliding bed, plates for electrotypes, type chase and steel furniture for same. This press is heated by gas only. The machines heated by steam are preferable because they can not become so hot as to scorch the impression. It is only necessary to see that the steam is on and then there will be enough heat for all kinds of laid-on jobs.

Powder is used in few instances, and then only for names that can not be penciled in with size. If a panel has been blanked out and stamping in of leaf afterward becomes necessary, glair can not be used, as it would spoil the blanking. Coarse linens, silks or woolens can not be sized without being stained. In such instances, powder is the safest method to employ.

(To be continued.)

Written for THE INLAND PRINTER.

MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

BY PHILIP ZACE.

NO. II.— SINGLE MARGINAL BOOK AND PAMPHLET FOLDERS.

SINGLE marginal book and pamphlet folders are capable of folding a large variety of styles and sizes of book, circular and pamphlet work. These machines will fold sheets ranging in size from 12 by 16 inches to 32 by 44 inches. Eights are delivered flat at the second fold; sixteens and thirty-twos in the packing box. The following is a list of the sizes of paper and the styles of imposition that can be folded:

8 pages, sheets 12 by 16 inches to 32 by 44 inches.
12 pages, sheets 12 by 12 inches to 31 by 31 inches.
16 pages, sheets 12 by 16 inches to 32 by 44 inches.
24 pages, sheets 14 by 16 inches to 31 by 31 inches.
32 pages, sheets 14 by 22 inches to 32 by 44 inches.

By adding extra sets of fold rollers parallel to the second and third fold, oblong twelves, sixteens, twenty-fours and thirty-twos can be folded two or more to a sheet, as the size of the paper will permit, a very economical way, as two or more signatures can be wire-stitched, cut apart and trimmed at less expense than by handling each signature separately. By special imposition many results can be obtained not here suggested. Some of these schemes will be described later on.

Sheets one-half size or smaller can be tipped in at the first fold and delivered from the third fold into the packing box. In the marginal machines special attachments are necessary for the tipping-in process.

A perforator should be used on all three and four folds. Its object is to prevent the buckle or draw usually found at the head of the sheets when

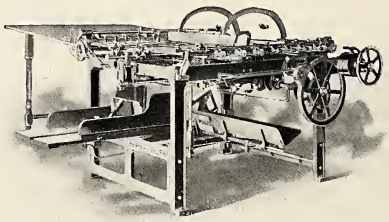


FIG. 9.

folded. Fig. 9 illustrates the Dexter special large-size rapid drop-roller book and pamphlet folder, which handles sheets ranging in size from 22 by 32 inches to 38 by 50 inches. Machines of this character will be referred to in describing the adjustment of jobbing-folder mechanism, and all

vital differences in other machines of the same make and in machines of different manufacture will be noted in their proper places.

The course of the sheet as it passes through the above machine is illustrated in a diagram showing the relative positions of the various fold rollers (Fig. 10). The positions of the auxiliary fold rollers for parallel folding are shown also.

The folder-operator must first adjust the machine to the size of the sheet. To do this he must fold or crease the printed sheet in the middle by hand and then hold it up to the light to assure himself that the pages are in perfect register.

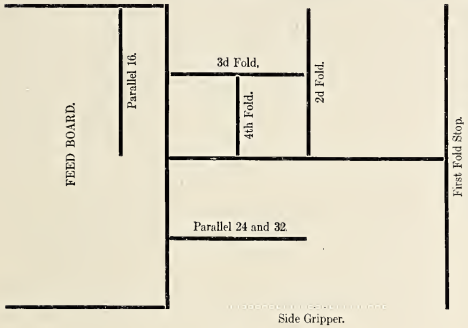


Fig. 10.

There are two guides fastened to a small rod next to the feed-board. Underneath and attached to the feed-board are four steel tongues, which protrude as a rest for the guide. Lay the sheet flat on the feed-board and move the guides so that they will rest on the proper tongues. Then adjust the side guide on the feed-board to conform with the size of the paper. Turn the machine forward by hand until the sheet rests against the first-fold stop gage. Let the first-fold blade come down to touch the crease in the sheet slightly, and then loosen the side gripper and set it so that the sheet will miss the registering edge by about three-fourths of an inch as it passes into the machine. This will prevent the sheets striking against the gripper. The gripper has a stroke of about one and one-fourth inches and it should move forward, pressing against the edge of the paper so as to buckle it after it has reached the first-fold gage. Then the hammer should come down and the backward stroke of the gripper should bring the sheet into registered position, after which the hammer is raised to release the sheet. This will bring the sheet into absolutely correct position under the first-fold blade, if the gripper is properly adjusted.

It must be understood that the sheets are slightly to one side of the machine when they are fed to the folder. The gripper is located exactly one-half the length of the main shaft away from the first-fold blade. This means that the sheet will be fed about three-fourths of an inch out of the center of the machine, the long end being on the feeder side, the gripper being on the opposite side. The first-fold gage should be adjusted in proper position with the hand wheel to arrest the sheet so as to bring it with its center exactly under the second-fold blade. The second-fold gage is adjusted so as to bring the center of the folded sheet exactly under the third-fold blade, the same principle applying to the third-fold stop gage with reference to the fourth fold.

These adjustments refer to the Dexter folder and they are applicable to other machines in most instances. Some slight differences in the operation of the Chambers side gripper are shown in the accompanying drawing (Fig. 11). As in the Dexter, the sheets are fed between the drop roller (*C*) and the revolving drum roller (*B*), around which pass the carrying tapes, and these draw the sheet into the machine to the position where it is engaged by the first-fold blade and tucked thereby between the

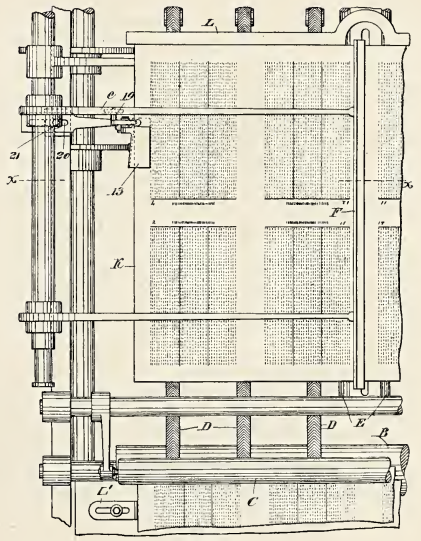


Fig. 11.

first-fold rollers (*E*). The position of the sheet should be such that the line of creasing or folding is directly above the bite or grip of the two contiguous rollers. In the drawing one sheet is just passing between the drop roller and the drum roller, while another sheet is in position to receive the first crease by the fold blade. As the sheet is carried onward by the tapes its forward edge abuts against the stop gage (*L*) and is squared thereby.

A cam located directly under 20 (not shown in the drawing) moves the guide head (13) forward until it comes in contact with the edge of the sheet and grips it. This position is shown in the drawing.

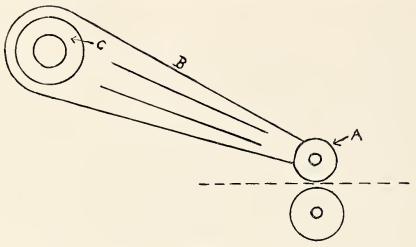


Fig. 12.

A concentric portion of the cam above referred to moves the guide head back and it carries the sheet with it to the required position, or where the crease or first fold of the sheet is directly above the bite of the fold rollers. This briefly describes the methods of adjusting the sheet in the Chambers folding machine. In other words, the Dexter gripper reaches out for the sheet and pulls it back, assisted by a kicker on the opposite side of the sheet, while the Chambers gripper head comes down and draws the sheet in between two friction rollers.

The drop roller must be adjusted so that it will be even on both ends, so as to carry the sheet equally into the folder. The folder operator must use care and observe that there are no rough particles on the front of the drop gages, which would cause them to lift the sheet upward as they are raised. There is also a small round rod which passes through the gages, leaving just sufficient space to feed the sheet. This rod is for the purpose of preventing the guides from having a tendency to lift the sheet. To try the drop roller, to see if it is pulling evenly at both ends, a sheet can be run into the machine a short distance and then, by taking hold of it at each corner, and by drawing it backward, out from the rollers, it can be determined whether one end is pulling harder than the other. The sheet should travel squarely under the drop roller up to the first-fold stop gage.

A number of small brushes are attached to the top rods to press against the rear edge of the sheet to prevent rebounding after it strikes the first-fold gage. Two small wooden wheels, 1½ inches in diameter, are clamped to the same top rod for the purpose of more positively feeding the sheet forward, by causing it to be held snugly into frictional engagement with the tapes. The adjustment of these wheels will be described under "corrections of common difficulties."

In case any of the cams or parts should be out of time, they can be retimed without a great deal of difficulty. The drop roller should be timed so as to send the sheet in just as quickly as possible after the previously fed sheet has passed through the first-fold rollers. If the incoming sheet just barely misses the one going through the rollers it is sufficient.

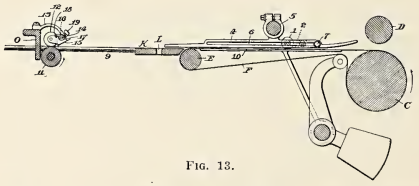


Fig. 13.

The next adjustment which requires some care is the slow-down. By slow-down is meant the rubber foot, or the friction roller in some machines, which is attached to the long cast-iron frame extending over the sheet. It will be observed that in operation the sheets are carried into the folder at a high rate of speed. The slow-

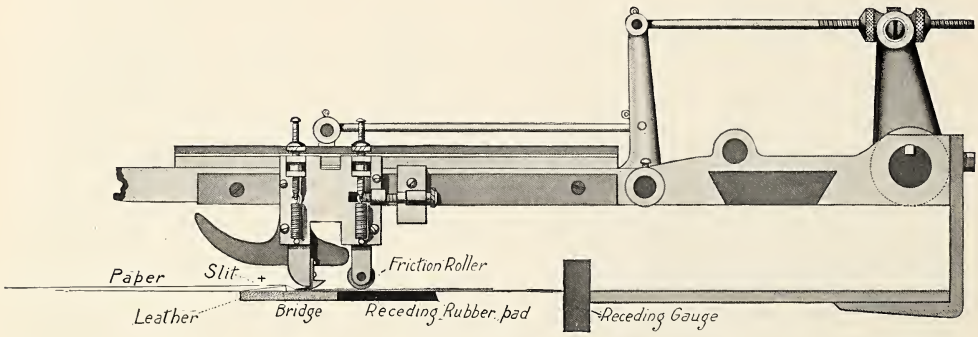


Fig. 14.

down is to be carefully adjusted and timed so that it will strike the sheet while its front edge is about one inch away from the first-fold gage. This will slacken the sheet so as to bring it gently against the stop. It will be understood that in working different sizes of paper the slow-down cam will have to be shifted. The other cams need never be changed, no matter what size sheet is to be folded, if the machine is once set and timed perfectly for

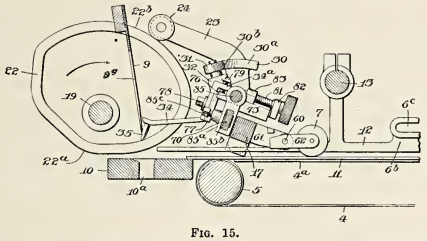


Fig. 15.

the largest sheet the machine is to fold. The automatic side gripper should be timed to move in instantly when the sheet has reached the first stop. It is even practical to set it to move in just a trifle before the sheet reaches the first-fold gage, in order to save time. The instant the gripper has reached its backward stroke the automatic points must be set to come down on the sheet. These, however, are very seldom required.

The cam that operates the gage must be timed to cause the gage to recede at the same instant. The first-fold knife must take the sheet at the very moment when it is brought against the points. There is just sufficient time for all the parts to do their work, but they must be set just as closely after each other as possible.

One style of Dexter slow-down or retarding rollers is shown at *A* in Fig. 12. These are journaled in the ends of arms (*B*), which are adjustably keyed to the rock shaft (*C*) and operated with a crank arm which rocks on the face of a cam.

The Chambers slow-down or stop is illustrated in Fig. 13. *O* is the first-fold stop bar for arresting the advance of the sheet as it is being carried into position to be folded. Fig. 1 is a small friction roller, located over the tapes (*F*). This roller is yielding or self-adjusting with relation to the tapes. As the sheet is carried forward at full speed by the tapes it passes beneath the roller (1), which presses the sheet against the tapes and thus it is retarded somewhat and carried on positively to the folding position. In order to prevent recoil of the sheet when it comes in contact with the stop bar (*O*), a roller (11) and a set of small friction rollers (12) are arranged close to the stop. These friction rollers are connected with stop roller (*O*) by means of a bracket (13), and they bear yieldingly on the roller (11). The sheet passes between these rollers. A spring (16) regulates the tension of the friction rollers. The tension of the spring and the consequent yielding pressure of the roller are adjusted with a thumb-screw (19).

The Brown slow-down is essentially the same as Fig. 12.

There should not be a great deal of difficulty in timing everything pertaining to the first fold, excepting the automatic points. It will be understood that the first-fold gage is what is called a receding gage. It is adjusted so as to arrest the sheet with the point slits about five-eighths of an inch from the points. After the gripper has pulled the sheet into side register position the points will then drop on the sheet.

Fig. 14 is an illustration of the Dexter pointing device. As the sheet of paper is conveyed into the folding machine by the tapes its advance edge strikes against the receding gage. The bar is then dropped and the small tongue at the bottom of the shoe (just above the word "bridge" in the illustration) is made to bear slightly upon the sheet, while the friction roller bears firmly thereon to press the sheet into contact with the bed of the machine. At this point the receding gage moves forward and shifts the bed, which imparts a secondary advance movement to the sheet, by reason of frictional contact. In this movement the slitted portion of the sheet is drawn on to the top of the bridge, which opens the slit and facilitates the entrance of the tongue. The rear edge of the slit comes in contact with the heel of the tongue, arrests the further advance of the sheet and accurately registers it. The bar raises, the tongue lifts the slitted portion of the sheet to prevent the slit from being caught on the bridge, the sheet is withdrawn from the tapes by the folder blade and the paper continues through the machine.

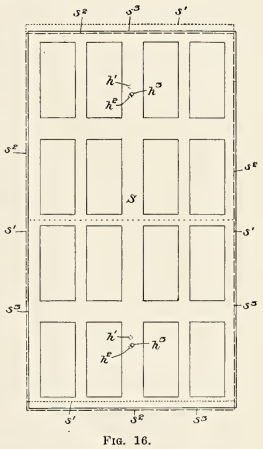


Fig. 16.

The position of these slits is shown in Fig. 1 of the first article. The cutting rules should be locked in the margins, each about 7½ inches away from the first fold.

Some Chambers folders are also equipped with pointing devices which operate in conjunction

with slits, while others have the mechanism shown in Fig. 15, which registers the sheet by holes or perforations in the sheet. The position of these holes is shown in Fig. 16. The edge of the sheet (S) at the bottom is the guide edge. The dotted lines (S^1) of the edges of the sheet and of the holes (h^1) indicate the position of the sheet and holes when pushed inwardly, to the full extent, and the broken lines (S^2) and (h^2) indicate the position when retracted to the full extent. In both of these positions the forward edge of the sheet to the left will be against or close to the stop bar and the bottom edge against or close to the closed end of the guide plate. The "pointed" sheet is fed to the machine in the usual way. There are two vibratory pins (35) operated by cams and the mechanism in connection, illustrated in Fig. 15. While the side-guiding or adjustment of the sheet is taking place, the roller (24) of crank arm (23) is riding upon the high part of the cam and consequently the pins are in an elevated position. As the cam continues to revolve, the roller will gradually ride on the low parts and the pin-carrying shaft will rock forward by the force of a spring and so depress the fingers which carry the registering pins until the latter enter the holes in the sheet. Simultaneously with the downward movement of the pins and the crank arm, the roller ascends to the high portion of the cam and causes the shaft to be drawn outwardly against the stress of the spring. The sheet is shifted laterally to the same extent. The nipper releases its hold on the sheet immediately before these two movements take place. Thus the sheet, otherwise entirely free, is now held in place and controlled by the register pins.

The theory of adjusting the folder blades must be thoroughly understood. They should be set so that they will just pass the sheets between the folding rollers. The operator should exercise care to prevent the knives from entering too deeply between the rolls. Every knife must be absolutely parallel and central with the folding rollers. In the first place, they must be parallel with the rollers, and secondly, they must be exactly between the one roller and the outer circumference of the tapes on the opposite roller. (See "corrections of common difficulties" in a succeeding article.)

The sheets will be delivered into the adjustable packing box directly from the folding rollers at the fourth fold. It is advisable, when four-fold work is being delivered, to raise the chute for guiding the three-fold sheets through the rollers. When the folder is equipped with the extra set of folding rollers parallel to the third fold, or when straight three-fold or sixteen-page work is being folded, the knife for the parallel fold should be held up by the hook placed for that purpose and the guide or chute lowered so as to pass the three-fold work through the rollers into the packing box.

If any difficulty is experienced in the general timing of the machine, it will be in the parts that control the first fold. After the first fold, the timing is but a simple matter. The distance between the folding rollers, where there are tapes going around one of them, should be about one-tenth of an inch. On the fourth-fold rollers, however, where there are no tapes that have to be regulated, the rollers should be set so that they will just bite the sheet sufficiently to give it the desired pressure.

The slitters consist of a sheet-slitting tool in combination with one of the fold rollers, which is carried automatically to and from the roller and timed to come in contact with the sheet immediately or soon after the sheet has been delivered to its position for passing between the fold rollers, thereby slitting the sheet from the roller to the edge of the sheet as it passes through. When it is desired to prevent the slitting of the sheet, the operator presses against the lever while the arm is in its elevated position. The lever is thereby caused to throw the arm back and thus prevents the slitter carrying arm from descending and slitting the misfed sheet, which is thus saved and may be subsequently folded by hand.

NOTE.— The next article of this series will show how to add extra folds for parallel work, how to make changes from one class of work to another, eliminating folds, the adjustment of perforating devices, and preventions and corrections of common difficulties.

(To be continued.)

EFFECT OF GOVERNMENT INSPECTION ON GERMAN PAPER TRADE.

In his report on the German paper trade industry and export trade the British Consul-General at Hamburg (Sir William Ward) writes as follows: "The most important branch of the paper industry of Germany (like that of other countries) is the manufacture of news paper on rolls. In the year 1900 a cartel was formed by twenty-nine of the most important German mills producing exclusively printing paper for newspapers, with a view to controlling this branch of the paper industry. The principles upon which this cartel was formed were firstly to regulate the amount of annual output, secondly to fix the prices proportionate to the costs of production, whilst at the same time — whenever a falling-off sets in as regards the home demand and production can not be restricted — to export the surplus output to foreign markets. The price at which printing paper is offered for export under such conditions is, as a rule, from ten to fifteen per cent less than the home trade price; when the wholesale export dealer at Hamburg, for instance, gets for 19 or 20 pfennigs (per kilometer) what is sold at 22 or 23 pfennigs in the home trade." In concluding the report, Sir William Ward remarks that competent authorities are of opinion that one of the causes which have chiefly contributed toward raising the quality of German paper, and in consequence toward extending its production and sale in such a remarkable manner, has been the establishment of the well-known official paper-testing institute at Gross Lichterfelde, near Berlin.— *Printers' Register.*



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BY GEORGE SHERMAN.

VIII.— MUSIC.



THE baked clay tablets of the Chaldeans, the incised inscriptions of a later period, the mystic symbols of the old Coptic priesthood, the manuscript musical notations of the epoch just preceding the advent of printing, the engraved wooden blocks of the early part of the fifteenth century, the crude musical printings from movable types of the latter half of the same century, and later improvements in musical letterpress, electrotyped plates, engravings on copper and steel, lithographic printings and impressions from process engravings — these mark the transition in musical notation from antiquity to the present time. The transcription of tribal songs by primeval man is as ancient as the first crude hieroglyphic notations of speech. In 1851-1854 Leonard Homer, a member of the Royal Society of London, attempted to measure the antiquity of Egypt by the alluvial deposit that forms the Nile valley. His numerous excavations along the parallel of Memphis and between the Arabian and Libyan deserts unearthed fragments of musical notations, baked in pottery, which were inscribed more than twelve thousand years before the Christian era. In these prehistoric musical notations the staff consisted of a single line scratched in the clay. Inflection, or the rise and fall of the voice, were marked with a single wave line which ascended and descended above and below the staff line through its entire length. Time and rhythm were regulated entirely by the predominating voices of the chiefs and leaders.

From the Roman era, up to the reign of Pope Gregory, a form of notation was in vogue which bore the name of Boethian, an ancient philosopher. It was composed of the first fifteen letters of the Latin alphabet and represented the following sounds: (Fig. 1.)

Gregory simplified this notation by reducing the number of letters to seven; and the employment of small letters and double letters made it possible to represent the entire musical scale. (Fig. 2.) The work of Gregory and the establishment of the Gregorian chant brings us to the end of the period of early music. There were numerous changes in musical notation from the seventh to the eleventh century; then, gradually, a style of writing called Neumes came into use. Manuscripts of this character date from the ninth century. The signs of inflection were placed at various heights under the text and the distances which separated them indicated the intervals. Changes and alterations rapidly followed each other; the imaginary line was replaced by a real one, the neumes became more exact, and finally letters were placed at the beginning of each line, indicating upon which the notes of the same sound were to be placed. The characters have reached their present form through the various stages shown in Fig. 3.



FIG. 1.

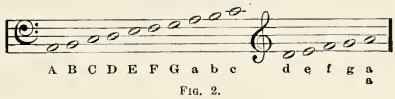


FIG. 2.

A facsimile of Handel's music manuscript from his original overture to "The Messiah," together with the signature of this noted composer, are reproduced. (Figs. 4 and 5.) This lends some idea of the character of musical notation in the first half of the eighteenth century. Fig. 6 is an excerpt from manuscript executed by the great master, Ludwig Von Beethoven, at the close of the eighteenth century.

Attempts were made to represent song typographically at the very dawn of the art of printing.

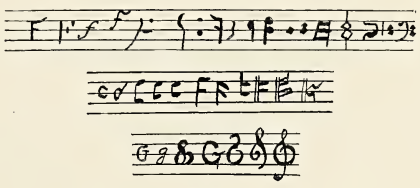


FIG. 3.

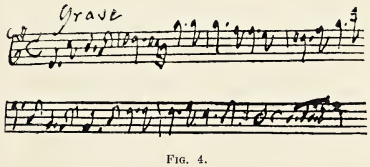


FIG. 4.

In 1473, Hans Froschauer used wooden blocks on which the characters had been engraved. Before this the staff alone had been printed and the characters were added by hand. In 1482, Scotus, a Venetian printer, devised a scheme by which he was enabled to print the staff at one impression and the notes at another.

Credit for the first effort to print music from movable type at one impression belongs to Erhard

Oeglin, of Augsburg. Copies of his work, dated 1507, are the earliest specimens of music printed from type now in existence. He used characters on which were both the notes and the staff lines, the same principle which is employed at the present time. The early form of printed notes was square; this was followed by a diamond or lozenge shaped note-head, and toward the latter part of the seventeenth century the present round shape was introduced. The earliest specimen of printed music in England was executed by Wynkyn de Worde in 1497. The earliest American music printing in an English office was done in 1770, when the New England Psalm-singer, or American Chorister, was printed in Boston by Edes & Gill. Christopher Sauer was, however, the earliest on



Fig. 5.

this continent. He issued a hymn-book at Germantown in 1753. This was in German. The credit for the first work in music has generally



Fig. 6.

been given to Isaiah Thomas, who published "Laus Deo" at Worcester in 1786.

A few months of the writer's apprenticeship, in 1887, were served in an old music-printing office in Hellertown, Pennsylvania. This shop was established in 1846, by Thomas R. Weber, and the equipment consisted of music type and cases brought from an old shop in Germantown. I have since been informed that much of this material formed the original outfit which was brought to America from Germany by Christopher Sauer, more than a century before its advent in Hellertown. I remember working on an old music case which contained names, markings and jack-knife dates of 1790 and thereabout. I believe this material is still in existence.

A knowledge of the rudiments of music is essential to the correct composition of music type; for, unless the compositor is acquainted with the relative time-values of the notes and rests he can not space them properly. The manuscript copy is given to the compositor, with directions regarding the dimensions of the page required and the size of type to be employed. He counts the number of measures in the piece, and allots to each measure the amount of ems in length which the page will permit, so that there shall be a general equality of space throughout the piece.

In instrumental music, and in pieces which are not interlined with poetry, the compositor will set two or more staves simultaneously, ranging the leading notes in the lower staves precisely under the corresponding ones in the upper staff; that is,

MUSIC UPPER CASE.



Fig. 8.

a certain amount of space in each staff, in a brace, must contain the same amount of time-value. Where lines of poetry are interspersed, as in ballads and in church music, the staves are necessarily set singly; and in composing the second, third and fourth staves the printer must constantly refer to the first, in order to make the staves correspond.

In vocal music most of the notes are on the staff and not above or below it. Length of sound is indicated by the openness of the note and the number of its terminations, the black notes with many hooks above or below being the shortest. Certain marks are used to indicate naturals, flats, sharps and ties, these being placed among the

MUSIC LOWER CASE.

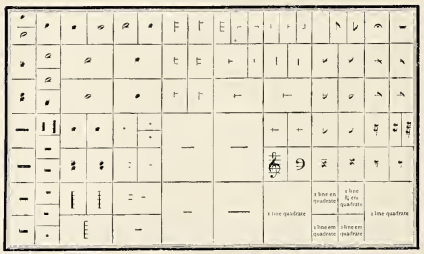


Fig. 9.

characters on the staff. Above the staff are the directions to the player or singer, sometimes in arbitrary characters, but more often in words, as "*affetuoso*," "*largo*," "*piano*" or "*crescendo*," Below the staff are the words, which are spaced and divided so that they come exactly below the notes to which they relate.

The length of time which a note should sound is a very important part in music composition. The length of a note is indicated by its form, and each of the smallest combinations is separated from the following and succeeding groupings by bars. The space between one bar and another is exactly the same in time, but it may be divided up differently. All notes being divisions of a whole note by two or its squares, the whole of the notes in a bar, added together, result in the same value. In this way, or by counting up values, errors in writing the copy can be detected.

A good compositor will be careful to make the lines overlap each other, brickwise, and not allow a joint to fall directly under another. Books set in the last-named style look slovenly, and the breaks in the lines have the appearance of hyphen leaders. The compositor should be careful to make the stems of all the notes in a page of the same length, except in grace notes, which should be about half as long.

The construction of music characters is a most difficult branch of typefounding, from a mechan-

MUSIC SIDE CASE

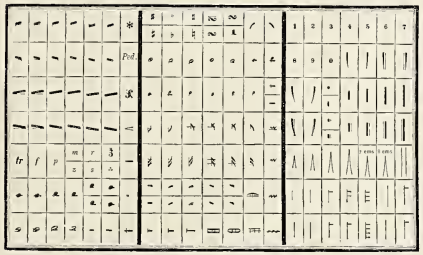


Fig. 10.

ical point of view. It requires skilful and patient work, together with the most accurate methods of securing measurements. Music type is a combination of metal characters and brass rule designed and constructed to work together in accurate alignment, in height and in set.

Music typographers occasionally design a series of notes for which special matrices are ordered from the typefounder. These matrices are usually held as private property and the type made therefrom is never sold to the trade.

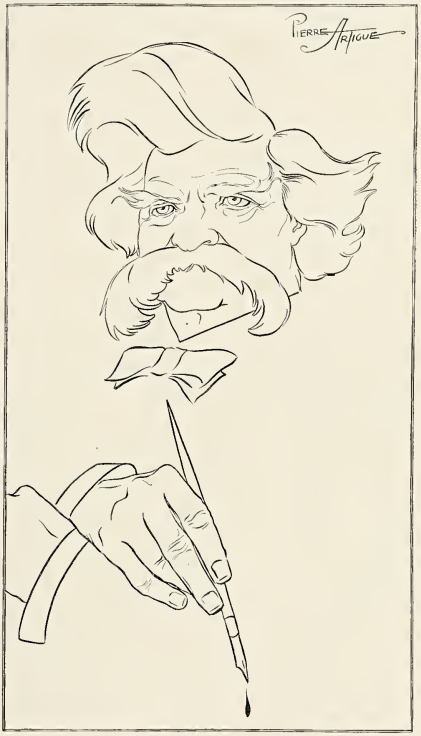
The MacKellar, Smiths & Jordan Company, of Philadelphia, were the pioneer music typefounders of the country, but to-day The American Type Founders Company is the only foundry which makes a complete series. A full font of characters and the case layouts are shown in Figs. 8, 9 and 10. Recent improvements in the Linotype make possible the composition of music on this machine.

Steel and copper engravings, though expensive, are still used by some music publishers; and pewter is a favorite metal with the English music engravers. When pewter is used, the lines are drawn with a graver and the notes are driven in afterward with a punch. The text is executed with letters stamped into the plate one at a time.

Music printing by lithography was the most extensive process in use for a long time, until the development of successful experiments with a combination of tool and process engraving on zinc plates a few years ago.

The Inland-Walton Engraving Company, of Chicago, has brought the zinc music plate up to a high state of perfection.

(To be continued.)



ONE OF THE DIFFICULTIES, SURE.

Writing of the problem of apprenticeship, a correspondent of a London newspaper says: "I happened to be talking over this subject with a relative of mine a few days ago. He is a printer and general stationer in the city, with a factory employing some one hundred hands. He says he has given up trying to get apprentices. Parents expect their boys to earn 8 s. or 9 s. a week directly they leave school."



Engraved by The Inland-Walton Company.

SPRUCE TREE, COOS COUNTY, OREGON.

Eleven feet in diameter, or 33 feet circumference. Some of the trees are over 45 feet in circumference.

Photo by Ernest A. Stauff. Courtesy H. J. Crippen, Coquille.

The Inland Printer

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Patrons will confer a favor by sending us the names of responsible newsdealers who do not keep it on sale.

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EDITORIAL NOTES.

WAS it irony or ingenuousness that caused a man to describe himself for "Who's Who" as a "blacksmith and owner of a printing-office?" Perish the thought he should be so dull-witted as to think such a description would place him in a unique position.

DAME FORTUNE still smiles on one of us occasionally. Mr. J. P. Nannetti is, or was, a compositor on a Dublin (Ireland) paper, and for some time has been a member of Parliament. As there is no payday for legislators over there, this certainly was in one sense a rather lean take. The people have, however, just handed Mr. Nannetti a nice fat one, in the shape of the Lord Mayorship, which pays about $18,000 a year. His Lordship can now "stay in" the jeffing till the stone crumbles, without fear of Her Ladyship wanting to know what became of the wages this week.

ONE of the silent changes in craft affairs, evidently overlooked by opponents of the eight-hour day — especially those who said their employees did not desire it — was that control of the International Typographical Union has passed into the hands of book and job men. Machines in newspaper offices, conditions and combinations which prevent the multiplication of newspapers, while commercial and book printing has enjoyed a natural expansion, have brought this about. The official estimate is that but forty per cent of the membership now finds employment in newspaper offices. That the Union has made wonderful strides in the past few years was palpable, but it required a deep look under the surface to ascertain that almost all that growth was of such a nature as to enhance the Union's effectiveness in a book and job room war.

IN speaking of the passing of an employing printer, whose business was limited, the chronicler says deceased was "too tender-hearted to be a commercial success," as a hard-luck story was always accepted in lieu of payment of a little bill. It was a fatal weakness, opines the writer, but because of it he bared his head as the tender-hearted one's body passed in its last procession. Business principles are ofttimes harsh and always inexorable, and those in trade must adhere to them if they would extract from life the best there is in it. There is a ring of the pathetic in the obituary note referred to; but at bottom the note is false. If the kindly man had applied with fairness and firmness business principles to his business and prospered, who can say how many he might have helped in various ways with the accrued wealth?

Not the least grateful might be some of the debtors whom he would have forced to pay up. There is seldom real benefit in laxness.

THE INLAND PRINTER is not blind to the defects of trade unions, nor has it hesitated to criticize their inefficiencies or condemn wrongs done by them. It has never, however, so lost its mental balance as to condemn this very human institution because in its fallibility it has erred and allowed a few weeds of abuse to flourish in its wonderful garden of good accomplishments. Considering their opportunities, their mental equipment and the irritating and formidable character of the opposition encountered, trade unions have — judged by the standards applied to other organizations — won a creditable record. Perhaps the greatest abuses have come from the incompetence, corruption and cowardice of some of its leaders. Of these men the world has heard volumes — mainly because of their being exceptional. Of the others little is vouchsafed us; yet to them is due much of what is admirable in their movement. In order to be of the best possible service to his constituents, a union official must have some knowledge of the employer's point of view, and once that is acquired, the most rabid lose some of their crudities and soon become the sources of much sage advice to the high privates. This sort of leadership fathers wisdom of the kind which is clipped from the official journal of the bookbinders' union: "Our policy should not be one of antagonism to our employers, but, on the contrary, to secure conferences with them, and, through negotiations, conciliations or arbitrations, bring about satisfactory results. A strike should not be resorted to until success is a certainty. Work, and work hard, for that efficiency in management; put your leading minds in the positions of trust, so they may steer the ship of labor clear of the danger spots which have threatened and are still threatening destruction to the hopes of millions of the sturdy sons and daughters of toil. It will require concentrated action and the finest kind of management if the mission of the labor movement is to be realized."

That emanates from a man whose preëminence in his craft is due to his rock-ribbed unionism, and is impregnated with reasonableness and wisdom. The practical lesson is, that if an employer feels he is unjustly treated and yearns for the "square deal," he might do worse than reason out his case with the much-abused and misunderstood union official. Many successful employers have found peace of mind and some profit in treating union officials as rational beings promoting the true interests of their people, and not as ignorant, narrow-minded, hold-up men.

HENRY GEORGE, JR., ON UNIONS.

IN his work, "The Menace of Privilege," Henry George, Jr., in making out his case against privilege, or for a tax on land values, reviews the industrial situation as represented by the relations existing between employers and employees. As the purpose of this article is to show one view of labor unions, and their work, it is necessary to state something of the author's general attitude. In a word, Mr. George sympathizes with the purposes of unions, but assumes a position of kindly tolerance toward the machine itself, being less hopeful of appreciable good through such methods than is the average economist of the capitalist schools. This author denies that there is bitter and inevitable antagonism between employers and employees under natural conditions; unjust privilege monopolized by the few has been pilfering from combined product of the two. The theft is so skilfully done that employer and employee can not see it, but in their rage are blaming each other for taking an unfair share. Whether a conflict be born of ignorance or not, the combatants must have weapons, and so Mr. George accepts the union as a necessary evil until enlightenment shall come to employers and employees. The author is frequently referred to as a Socialist, which he is not; rather does he represent the school which will be found combating socialism at the last ditch, and the existence of which has had not a little to do with the comparatively slow acceptance of socialistic ideas by English-speaking people.

Agreeing with Lincoln that capital is the offspring of labor, Mr. George points out that monopoly is not capital, as it adds nothing to the power of production, but deals with distribution — is an appropriation, not a producer — and robs capital as well as labor. Not only is this difficult of ascertainment, in our complex state of society, but it is intentionally obscured by the beneficiaries for various reasons, one of the results being "all capitalists are thought to be against all laborers." The only hope of redress apparent to the latter is organized resistance to capital, with the strike and the boycott as the weapons of the workers, with the alternative of wage agreements. Strike or boycott wars are declared to be no better than fights in the dark, which would seem to be severe condemnation, though doubtless Mr. George supports the strikers in most conflicts. The analogy is not nearly so gloomy for the workers as that of many labor leaders. The ostracized Debs likened a contemplated strike of railroad employees to a struggle "between empty stomachs and full bank vaults." The fact remains that all the terrifying and picturesque similes of friend or foe do not prevent the workmen from voting for a strike when their "blood is up."

The arguments of unionists for admitting to membership men of inferior skill and in establishing a minimum wage are admirably put. "These demands" (wages), Mr. George makes the unionist say, "are based upon the average abilities of our whole number. They are relatively below some men's abilities, relatively above others. The strong make concessions for the sake of including in their ranks the weak. Otherwise, being left out between himself and the inferior union workmen that might possibly exist if conditions of employment were free and there was an abundant demand for labor, yet it seems clear that this superior workman actually gets more with a union under the present circumstances. Without unions, competition in the present limited state of employment would have reduced the mass of laborers to a far lower status than they have to-day."



AN IDEAL CAMP, ISLAND LAKE, ALGONQUIN NATIONAL PARK.
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

of the organization, the weak would be forced to seek employment for themselves. They would underbid the union rate, and, to that extent, lessen the effectiveness of the union demand. Therefore we embrace those weak ones and reduce our scale accordingly." He shows that this in a sense seemingly operates to the disadvantage of the expert workman, if those less skilled were to form a union and go on strike, when the expert would get scarcity prices. But if there were no organization, the expert would receive merely competitive wages, so Mr. George's unionist concludes that "while the superior workman in going into a union lessens in point of compensation that distance

Mr. George regards the "closed shop" and some other union practices as invasions of natural rights, but takes care to turn the shield and make clear that laborers are not governed by natural conditions; if they were there would be no unions. The customs incompatible with the recognized rights of persons and property are defended on the same grounds offered when a man is drafted unwillingly into the army, or dispossessed of his goods in case of famine, or has his house blown up to stay a city conflagration — that the infringement subserves the public good. Thus we see trade unions are essentially warlike organizations, for without ability to fight they are as useless to

their members as an army without guns or ammunition.

Mr. George scents danger in the steady centralization of unions that has been going on for some time. But, after all, the real fear is the increased opportunities centralization gives for the elevation of corrupt and incapable men to office. In dealing with the mooted question of whether wage agreements do not result practically in combinations to mulct the public, the author's comments may serve to soothe the consciences of such followers of the printing trades as entertain doubts as to the ethics of such an act, as well as enlighten those working under such agreements who have been looking in vain for their share of the much-talked-of plunder that is said to be extorted from the public. According to Mr. George, these agreements operate as hold-ups when they are made between highly organized unions and employers in the enjoyment of some sort of monopoly. In such instances they are in reality merely guaranteed against strike or other interferences, while the monopolists "ply a purse-filching trade against the public." In competitive businesses, agreements with unions are not plundering adjuncts, for the reason that competition prevents any but the loosest form of organization among employees. The unions, however, make no fine theoretical distinctions, doing business with whomever they may, in the printing trades entering into agreements with book and job employers who are cursed with cut-throat competition, or with newspaper publishers who are in the enjoyment of practically monopoly privileges.

After sketching the methods adopted to circumvent the unions — from the organization of bands of strikebreakers to the extreme citizens'-alliance actions in Colorado a year or so ago, Mr. George says that while they may in some places, and for a time, break the power of trade unions, out of the reaction will surely come more closely organized and more aggressive organizations. This suggests to the printer the query whether the campaigning and threats of the anti-eight-hour people did not do more to make the union men determined than to strengthen their opponents. But, much as he dislikes industrial strife — in his opinion misdirected and of little benefit — Mr. George prefers it to industrial peace through collective bargaining between monopoly employers and organized laborers. He pictures them as two armies quartered on the people, who will eat the substance of the nation, even if the division be unequal.

The attitude of the courts toward the privileged ones and labor is gone into fully. In Mr. George's opinion, history justifies Thomas Jefferson's remark that the judiciary was a "subtle corps of sappers and miners constantly working under ground to undermine the foundations of our federated fabric." There are many pages reciting cases and incidents which well illustrate why injunctions cease to terrify strikers and boycotters, and why the working classes are filled with suspicion of or contempt for the courts; but there is no need to recount them here. There is interest in what might be called the rise of the injunction in labor disputes, as it demonstrates on what a flimsy precedent the superstructure is erected. In 1868 an English Vice-Chancellor issued an injunction under an act of George IV., enjoining strikers from issuing placards intended to injure the business of their former employer. The judge said there was no precedent, but he thought it beneficent to prevent these men from depreciating property which was "the source of their own support and comfort in life." In other words, the order was issued on the theory that it would prove beneficial to the interests of the men against whom it operated. This judge issued another and similar order, and in time both were cited as precedents to sustain a contention in an insurance case that was taken to the Appellate Court. The three judges of this high chancery tribunal negatived the injunction judge's action, because it was "at variance with the settled practice and principle" of the chancery court, "had no authority in any reported case," and "no foundation in principle." Yet, thirteen years after the repudiation of this original restraining order it is cited as a precedent for the first American "labor" injunction — issued by a Massachusetts court in 1888. Out of this has grown a pile of American injunctions, which the English courts cited as justification for their revival of injunctions, and Canadian judges have taken a hand in the game on the authority of British courts, so that ere long Mr. George expects our courts to cite Canadian judges as sustaining some new kind of restraining order. We all know the law passeth all understanding, but why wonder at the perturbation of workingmen when they hear the wisdom and justice of the courts extolled or think them foolish when they express the hope that the injunction fabric will topple over of its own weight?

LABOR.

Labor is the ornament of the citizen.—*Schiller.*

Learning is pleasurable, but doing is the height of enjoyment.—*Novalis.*

The fruit derived from labor is the sweetness of all pleasures.—*Vaubenargues.*

The lottery of honest labor, drawn by Time, is the only one whose prizes are worth taking up and carrying home.—*Theodore Parker.*

Labor is the talisman that has raised man from the savage; that has given us plenty, comfort, elegance, instead of want, misery and barbarism.—*McCulloch.*

COPYRIGHT AND THE PRINTER.

THE fact that there are seventy-five men in the present British House of Commons who are connected with the printing trade in one capacity or another — as proprietors, newspaper men, litterateurs, publishers, papermakers and compositors — may possibly have more than a news-item interest for the craft in America. That is a goodly proportion of the membership of the "Mother of Parliaments," and we may be sure they are wide-awake enough to secure a respectful hearing for any measure looking to the advancement of their interests. Judging from comment here and there, now and then, one is justified in concluding that the British printing world is dissatisfied with the existing copyright laws. Our law contains a clause requiring that the type be set in this country before a copyright is granted for a book, while an author can secure similar protection in Britain without having the composition done there. With us the last report was that the wage-earners were wroth at the authorities for permitting the law's evasion through palpable subterfuges, such as passing slightly mutilated plates as broken metal, etc.

The plaint of the American compositor is that the act is not particularly beneficial to him, but his British fellow and his employer are emphatic in their declarations that it is a delusion and a fraud — the instrument of much injustice to them. In the recent election, candidates were "quizzed" on the question, which evidences a determination to make it an issue. The *Scottish Typographical Circular*, a trade-union publication, asked candidates on the stump if they were agreeable to amending the law "so that copyright or patent rights shall not be granted unless the books claiming copyright shall be wholly set up and printed, or all articles claiming patent rights entirely manufactured in Great Britain?" One candidate — Lord Roseberry's son — said it was a mere question of protection, and being a free trader he could have no sympathy with such a proposition. If the candidate thought that answer put the troublesome horse in the proper stall, he was much mistaken. The *Circular* avows that it, too, is a



A GLIMPSE OF THE MAGANETAWAN RIVER, "HIGHLANDS OF ONTARIO."
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

free trader, and the issue is not one of protection by tariff. The *Circular's* views are interesting as indicative of how deep-seated is the resentment at the present treaty. It looks upon the proposals to reform the tariff with disdain, and as "unworthy of the intellectual altitude of Great Britain" and a slur on its legislative maturity; yet it is necessary to fight the foreigner with his own weapons. The *Circular* would not have an import tax on printing, but would compel all those who seek the protection of the copyright law to have their composition done in Great Britain as payment in part for the protection received. The *Circular* eases its free-trade conscience and defends its method of making more work in these words: "As it is a fact of experience that the taxation of imports tends to benefit the few at the expense of the many, we claim for our plan that it benefits capital equally with labor, and it would be no hardship on the protected, as whichever way he looks at it his payment for manufacture would be the same practically as before, while it would force the foreigner to have his patented articles made here, or stand the inevitable consequence of handing them over for the benefit of the British public free of charge, to any who cared to put them on the market, just as our American cousins do now."

If the seventy-five printing-trade members of the House of Commons desire, they may find some way of opening up the copyright question. If they do, there will be much noise by those who delight in lobbyings at the national capital, but it is doubtful if the most drastic change in the law will make much difference to the American printer. It may have the effect of preventing an occasional book being printed in this country, but not enough to appreciably affect the trade at large or in any community. Much was expected of the "typesetting" clause in the existing law, but there has been no definite proof that much was accomplished. And our contemporary, the *Scottish Typographical Circular*, in the event of success, will most likely find there has been a great cry for little wool. Printing is not one of the industries that can benefit greatly by the stimulants which may be doled out by a legislature. "From our political friends and their nostrums and devious ways deliver us," might well be placed among the supplications of the graphic arts.

AN INESTIMABLE BOON.

We are old subscribers to your excellent journal and find it an inestimable boon in our advertising department.—*Stewart Dawson & Co., London.*

DEFINITION OF A CRITIC.

Son—"Papa, what is a critic?"

Father—"A critic, my son, is a person who couldn't have done it himself."—*Bagology.*

THE NATIONAL LEAGUE OF PRINTING PLANTS.

THE numerous and spontaneous favorable comments on Mr. Putnam Drew's suggestion for a national league of printing plants demonstrates the widespread desire for effective organization on the part of employing printers. Many things go to make up the sum total of evils from which the craft suffers, and to proceed on the theory that nothing can be done until the worker is reduced to a state of approaching economic serfdom is shortsighted and absurd. In times past it was axiomatic that if an employer wanted more profit and followed the line of least resistance he depressed wages. It is questioned if such is the case now. What with labor organizations and the general understanding of the laws governing wages, there are mighty moral and material interests to challenge the justice and expediency of low wages. There is even a school which maintains boldly that reductions in wages are invariably followed by corresponding decrements in profits, and that wholesale reductions are bound to result in "hard times." The change of view on this phase of the labor question is illustrated by no persons more clearly than by employers themselves. Time was, and not so long past, when they boasted of the low rate they paid their men and the meager accommodations provided for them. Now employers draw the long bow about the high wages paid and the considerate treatment and care given "their people." Even the anti-union agitators, who protest that labor organizations hinder rather than advance the material interests of the men, do not dare to allege that there is merit in a low standard of labor conditions. To bring them about may be their purpose — the labor people aver that it is — but in deference to the trend of modern public thought they do not make such an avowal.

So an organization of printing-office proprietors that makes antagonism to improved labor conditions its principal aim is bound to have a life of trouble and little lasting compensation therefor. Nothing is so profitless as "bucking" the onward and upward movement of mankind. An occasional individual may make it pay, but not an organization. The Typothetæ is a case in point. The circumstances attending its inception put it in opposition to a reduction of the hours of labor. As a rule, it has been dominated by the same spirit during all its life, neglecting all other great craft questions, and it is now where it was in 1887 — fighting a losing game, for its officers admit the eight-hour day will be the rule in a few years. Meantime, in other fields of legitimate endeavor, as an employers' organization, the record is barren of notable achievement.

Mr. Drew's plan lessens the possibility of such a colossal waste of opportunity and energy. He

has noted the march of events, and would have printers heed them. There may or may not be profit to employers in low wages. That is not being discussed now; but while depression of labor conditions may have been "following the line of least resistance" forty or fifty years ago, it is not so now. Recognition of this fact and that there are other evils to be remedied, are what make Mr. Drew's plan appeal so strongly to many. The regulation of labor is always important to an employer, partly because it is the vital element in his business; but what folly for an organization to attempt to regulate it by unreasoning opposition, coupled with harassing threats? Isn't it a species of slow torture of the proverbial goose which lays the golden egg?

Mr. Drew hitches his wagon to a star and makes a proposal so ambitious as to cause one to hesitate about prophesying as to its entire feasibility; but there is need of an organization of the people he addresses, and it should be of real value, for it will not lose its sense of proportion and neglect all else for the purpose of solving the most difficult of all human problems — the regulation of the labor question.



Written for THE INLAND PRINTER.

AN INTERESTING OVERLAY METHOD.

BY JOHN SMITH.



IN the January number of the Leipzig "Archiv für Buchgewerbe," Prof. Arthur W. Unger, of Vienna, describes at length a novel overlay method of Lankes & Schwärzler, of Munich. In this system a special overlay paper is used. It is coated on one or both sides with chalk. The supporting sheet is made impervious to moisture, so that the subsequent operations will not throw the impressions made on its chalk-covered faces out of register with the engraving that is being made ready.

If the overlay relief effect is to be made on one side only of the sheet, then paper having a chalk coating on one face is used, and when it is desired to accentuate the overlay effect, paper coated on both sides is utilized.

Suppose an engraving is to have an overlay made therefor, the first step is to place a supporting sheet on the tympan and over this a sheet of highly glazed paper is secured. The engraving having been leveled up, it is rolled up with a glutinous ink — which is then impressed on the glazed paper, with a fairly heavy impression. Over this is laid a sheet of the chalk-coated paper and thereover three or more protective sheets. The press is rotated and the engraving is brought into impression without inking. This produces an "offset" from the glazed paper onto the under face of the chalk overlay sheet.

The protective sheets are now removed and the engraving is again inked, as in the first instance, and an impression is made on the upper face of the chalked sheet. There will now be found two impressions, one on each side, both being in register. The impressed sheet is now placed in a weak acid bath, wherein the uncovered chalk portions are eaten away through the cohesion of the particles being destroyed; this leaves a relief surface which is proportional to the printing area of the engraving.

The chemical reaction on the special chalk coating produces a red discoloration thereof, whereby the progress of the acid action can be easily noted, as the supporting sheet is white in color.

It is desirable that the under-side relief shall not be too sharp. With this end in view, a thin rubber sheet may be placed under the overlay and the relief itself may be rubbed gently with the hand, or a soft brush, while it is in the weak acid bath, so as to destroy the sharp edges.

The overlay when dry is placed on the tympan, in register, and a cover sheet is used as a surface protection.

The cost of a 14 by 20 inch make-ready is given

as 61 cents, including all items, which works out at about ¼-cent per square inch.

This system is somewhat similar to the fundamental principles of M. Schönberg's substitute for wood engraving under the name of "Acrography."

M. Schönberg prepared a chalk block under heavy pressure, so as to bring the particles into close relation and texture. On this he caused an impression to be made in glutinous ink from any existing engraving (when duplicating), or such ink was applied by an artist with a finely pointed sable brush. The glutinous ink served to bind the chalk particles together; thereafter a soft brush was used to gently remove the uncovered chalk particles to the required depth, and the relief so formed was covered with a silicate to hold all the particles against disintegration under the subsequent pressure of making a matrix for electrotyping or the moisture of the paper flong in wet stereotyping.



BEST OF ITS KIND.

I prize THE INLAND PRINTER above everything in the line of printers' periodicals. The best of its kind, it truly is helpful in all the branches of the trade.—*J. A. Snyder, Lititz, Pennsylvania.*

Written for THE INLAND PRINTER.

THE STUDY OF ELECTRIC PRINCIPLES SIMPLIFIED.

BY A. STAPHE.

NO. I.— SOURCES OF ELECTRICITY.



IN the early days when the Nestor of the printing art — Franklin — was also physicist, he established the identity of atmospheric and frictional electricity. What has been considered at various times resinous, vitreous, frictional, atmospheric, chemical and dynamic electricity is now known simply as manifestations, varying in degree, of the same agency.

The practical printer or processman has to contend with and employ in his multifarious duties static or frictional, chemical and dynamic electricity. Frictional, or preferably called static, manifests itself in the reluctance of paper sheets to leave each other when feeding the same to a press; chemical, when using batteries for bells, telephones or any signaling purposes, and dynamic in the motors that drive the various machines, as well as that supplied for incandescent and arc lamps.

The old nomenclature has been retained so as to make it more easy to divide the subject into its practical classes and thus enable the reader to more easily grasp the relation of the one to the other.

Without going into extended details of its production, it will suffice to say that static electricity is ordinarily that produced by large disk machines that have rotating members, and in contact with one or more of them, friction brushes which collect the current and lead it to the terminal or discharging points.

It will, however, be desirable to describe its characteristics. On a stack of paper that is being fed into a press, if the air is *very dry* and somewhat cool, the production of static electricity with its attendant attraction of one sheet for another is produced by the friction of the sheets against the feeding board and the hands of the feeder.

If a number of sheets of paper are placed in a pile and the upper sheet briskly rubbed with a handkerchief and then quickly removed from the pile with the other hand *only*, a sharp crackling sound will be heard, and if this is done in a darkened room, the crackling will be seen to be caused by electric sparks. If the sheet is held near a wall, it will adhere to it for some time, and if held near one's face, a feeling as though cobwebs were being rubbed against it is felt.

The law of this kind of current, which is of high pressure and small quantity, is expressed in this way. Things electrified positively (+) repel each other, and things that are negatively (—)

excited also repel each other; but if one thing is + and the other is —, then they will have an attraction for each other. In short, when things are electrified in the *same* sign they repel each other, and when of an *unlike* sign they attract.

When there is no electric manifestation, the forces are said to be in equilibrium, or normal, but as soon as excitation takes place, the exciting cause destroys the normal condition, collecting little by little on the thing excited a charge of + electricity (plus or *more* than normal). At the same time, while this is increasing, the exciting cause is having its normal condition changed to one of *less* value or negative or minus (—) sign. The one condition being more (+) and the other less (—) than normal. The greater the divergence from the normal, the more pronounced will be the pressure or the tendency to equalize the condition of stress that exists; hence the production of sparks as the collection of positive (+) or *more* pressure on a given surface reaches a point where its capacity is no longer sufficient to hold it, discharges or leaps across to a point of *less* pressure, thus equalizing the strained relation.



AT THE PORTAGE, ALGONQUIN NATIONAL PARK.
OTTAWA DIVISION, GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

Chemical electricity, so called, is produced in suitable jars, whether of glass or hard rubber is immaterial. The form ordinarily used is known as *an open circuit cell*, one from which the current is required only at intervals and *not continuously*. In the most ordinary form a carbon center is supported from an insulating cap which rests on the top of a jar, the insulation serving to *keep separate* a zinc rod that is also supported from it. A solution of sal ammoniac and water is placed in the jar and the carbon and zinc placed therein. In a short time, if a wire be secured to the carbon and its free end touched quickly and but for a *moment* to the zinc, a tiny spark will be noticed; or if another wire be fastened to the zinc and to a bell, and the other wire touched to the other connection of the bell, it will ring so long as the wires or the *circuit* are not separated from the contacts, showing that a current of electricity is present in the wires and the bell. It leaves the battery from the carbon, passes along the wire to the bell, through the wire which forms the magnet of the bell and along the other wire to the zinc and through the solution to the carbon, and so on around and round

so long as the wires are not disconnected. While this is taking place it must not be supposed that all of the noise produced is gotten *for nothing*, or without using up any substance. The zinc is being consumed much or little, according as to whether the bell requires more or less current to operate it.

Dynamic electricity is that produced by a dynamo, in which coils of wire wound lengthwise of a shaft are rapidly rotated between the ends of large magnets. The action when causing the wire coil to cut *across* the magnetism that is passing from one end to the other of the magnet produces a drag to the free rotation of the shaft, even though the coils of wire do not touch the magnet ends (called pole pieces) at all.

To overcome this drag requires power, and an engine or other means must be utilized to drive the coils of wire at a rapid speed.

A curious phenomenon results; as the wires cut *across* the magnetism and the engine overcomes the drag there is produced in the *moving* wire a current of electricity whose pressure is greater the more rapidly the wire is moved.

This kind of a current will supply lights or motors, and in the following lessons we will point out in the simplest manner possible the kinds of circuits, etc., that are used and the kinds of simple calculations that will enable the busy printer or engraver to become acquainted with this useful agency in its practical applications. What is more appropriate than that present-day disciples of the immortal Franklin in one field should also be familiar with the other, that made his fame as world-wide as did his connection with the graphic arts.

(To be continued.)

ALPHABET OF PROVERBS.

A grain of prudence is worth a pound of craft.
Boasters are cousins of liars.
Denying a fault doubles it.
Envy shoots at others and wounds herself.
Foolish fear doubles danger.
God teaches us good things by our own hands.
He has hard work who has nothing to do.
It costs more to avenge wrongs than to suffer them.
Knavery is the worst trade.
Learning makes a man fit company for himself.
Modesty is a guard to virtue.
Not to hear conscience is the way to silence it.
One hour to-day is worth two to-morrow.
Proud looks make foul work in fair faces.
Quiet conscience is quiet sleep.
Richest is he that wants least.
Small faults indulged are little thieves that let in great ones.
The boughs that bear most hang lowest.
Upright walking is sure walking.
Virtue and happiness are mother and daughter.
Wise men make more opportunities than they find.
You never lose by doing a good act.—*Philadelphia Record.*

Written for THE INLAND PRINTER.

IS A REVIVAL OF WOOD ENGRAVING IMMINENT?

BY ARTHUR OLIVER.

APROPOS of this query one finds tangible evidence that the art is not altogether lost, in fields other than the illustration of mechanical subjects.

Fliegende Blätter, of January 30, 1906, contains two splendid full-page wood engravings (one of which is reproduced here) which are an agreeable change from the half-tones and zinc etchings found on other pages.



There is a subtle charm in these two subjects that is entirely lacking in the other styles of reproduction; a tonal value, brilliancy, etc., that no ordinary half-tone can reach.

The opinion is ventured that the reason for the distinctive characteristics of a well executed wood engraving is to be found in the use of a true mechanical V as against an *approximate* optical V in process engraving.

The gradation from dead black to pure white should be a straight line, showing gray midway between the extremes. This is approached nearer in mechanical engraving than in chemical — hence a truer interpretation.

Written for The Inland Printer.

BANDING NEGATIVES AND PRINTS TO DETERMINE CORRECT EXPOSURES.

BY AMOS PANTAG.



IT is often desirable to speedily determine the correct exposure to give, depending on the grade of plate, subject and intensity of the light. In order that this may be done in a comprehensive manner and on a scientific basis, it is important to consider the economies involved in time and material and the ease of comparative inspection.

The person who desires to know what is the best exposure to make under given conditions does not want to do so at the cost of complicated apparatus or the contribution of a large amount of time, and yet it is important that he should get his information as accurate as possible.

A very simple method, that gives the exposures on a single plate, will suggest itself to any one familiar with camera plateholders; that is, to pull out the slide to various distances. This will band the negative, but will not give the information in such shape as to be utilized, without complex calculations. Ordinarily three exposures are quite sufficient, but the second should be twice the first and the third twice the second, so as to make it easy to judge of the results. Suppose the first was one second, the second would be two seconds and the third four seconds. The first idea would be to draw out the plateholder slide one-third its distance and expose for one second and then draw it out another third and expose for two seconds, and finally withdraw it altogether and expose for four seconds. This plan would give three separate exposures of four, six and seven seconds, a ratio that would lead to endless confusion.

In order that the bands shall be approximately of uniform width, it is well to divide the open space of the plateholder, lengthwise thereof, into three equal divisions, along the upper or lower margins, then withdraw the slide until its inner edge is opposite the first mark and draw a pencil line on the slide along the forward edge of the plateholder frame. Draw out the slide to the second mark on the margin and form a second pencil line on the slide in a similar manner to the first. This will enable the operator to see how far to draw out the slide in each instance.

It is important to observe that the camera must not be moved out of position by reason of the pulling out of the slide partially and then reëxposing, otherwise a double or triple image will be formed.

Now, in order to have three bands of one, two and four seconds' exposure, the slide is withdrawn to the first mark and a two-second exposure given; the slide is then drawn out to the second mark and a one-second exposure made; and lastly it is drawn out entirely and a final exposure of one second is given.

The detail and total exposures are tabulated below. Minutes may be substituted for seconds when required:

	First band.	Second band.	Third band.
In first position of slide	2 seconds.	None.	None.
In second position of slide	1 second.	1 second.	None.
In third position of slide	1 second.	1 second.	1 second.
Total exposure	4 seconds.	2 seconds.	1 second.

Analyzing this table, it is seen that when the slide is drawn out its first distance, the first band receives a two-second exposure and obviously the second and third bands none, because they are covered by the slide. As the slide is moved into the second position and an exposure of one second is made, the first band will receive this one second exposure, in addition to the two seconds already given, and the third band will receive none. When the slide is moved into its third position (entirely withdrawn) and an exposure of one second given, the first and second bands will also receive this one-second exposure in *addition* to the time previously given.

From the table it is seen that from the shortest exposure, arbitrarily selected, it is easy to determine the others, as follows: For the first band the exposure is *twice the shortest;* for the second band it is the *same as the shortest*, and for the third band, it is, of course, *the shortest*. The resultant time for each band is found by multiplying the shortest time by 2 for the second band and by 4 for the first.

Suppose the greatest time was arbitrarily selected, then the exposure for the first band would be one-half of it, the second one-fourth and the third one-fourth. Suppose the resultant exposure for the middle or second band is arbitrarily selected, then the exposure for the first will be the same time and the second one-half and the third also one-half of it.

From the resulting densities it is easy to select the best time for any given condition, at once, without using three separate plates and performing three separate developments, thus putting into the hands of the operator data upon which to reason as to succeeding steps.

If such a banded negative is used for Velox or other gaslight papers or lantern slides, it will be found advantageous to make three exposures or bands at *right angles* to those of the negative, when the combination of nine varying conditions will be shown on *one* print, which manifestly is more easily, cheaply and quickly produced than *nine* separate prints, besides the results are side by side, making comparative study easy.



From the *Auckland Weekly News*, New Zealand.

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THE GYPSY QUEEN.

CORRESPONDENCE

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names — not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

ANOTHER JOINS THE LEAGUE.

To the Editor: MARION, IND., March 17, 1906.

We heartily endorse Mr. Drew's plan to start a "National League of Printing Plants." We know positively that the printers in this neck of the woods need such an organization badly.

Enclosed is our quarter in stamps for the first month's dues. We hope that a thousand others will join this month. SCOTT PAPER & PRINTING COMPANY.

MR. PUTNAM DREW'S PLAN.

To the Editor: NEW YORK, March 14, 1906.

Enclosed you will find a rough draft I have made of my ideas regarding the National League of American Printing Plants. From all I hear in the East, this league idea has found almost instant appreciation as a possible solution of the long-vexed questions which have troübled the printerman:

NATIONAL LEAGUE
OF
AMERICAN PRINTING PLANTS.

A coöperative organization among all owners and managers of American printing plants to promote, in accordance with the plans outlined by Mr. Drew in THE INLAND PRINTER:

1. Better prices for products.

2. The evolution of a universal price scale for printing products which shall give to each producer a reasonable profit for his product and a chance to control his local trade.

3. The establishment of a differential scale of prices to be paid by owners of printing plants for the various supplies they need in the conduct of their business, so that persons not engaged in the printing business will be debarred from the purchase of paper, ink and other supplies at a price equal to or less than that paid by the members of the League.

4. The discussion of the many vital questions pertaining to the printing business and the presentation of such questions in printed form monthly to all members for decision by vote by mail.

5. The elimination from the governing rules of the League of all reference to the labor question as applied to employees of members of the League; that the League shall not in any manner deal with questions arising from disputes between employees and employer; that the members of the League shall assume that such discussion does not belong to the League but to the individuals affected, if any.

6. Membership in this League shall consist solely of owners of printing plants in some part of America, or their official representatives, duly accredited, and that no "supply men" or any other person whatsoever can become a member; that there shall be but one class of membership — ACTIVE — each member entitled to one vote; that no printing plant shall have more than one member or one vote in the League.

7. The dues shall be twenty-five cents (25 cents) each month, payable monthly or in advance.

IN BRIEF

BETTER PRICES FOR PRODUCT — BETTER PRICES FOR SUPPLIES — NO SUPPLY MEN AS MEMBERS — NO DISCUSSION OF LABOR MATTERS — NATIONAL SCALE OF EQUABLE PRICES TO BE RECEIVED FOR PRODUCTS AND TO BE PAID FOR SUPPLIES.

It is intended that each month such questions and resolutions as are proposed by members shall be submitted to all members in printed form by mail, with other data, in the form of a monthly bulletin, the members to send in their votes on the resolutions submitted by mail, a two-thirds' majority to rule.

If you wish to join this League and see if a better condition of the printing trade in America can be evolved thereby, sign the subjoined application blank and send in one or more months' dues, at 25 cents per month.

At the suggestion of Mr. Drew and others, the Editor of THE INLAND PRINTER, Mr. A. H. McQuilkin, has consented to act as temporary chairman of the proposed executive committee and to receive the dues sent in. When a sufficient number of applications for membership have been received in this initial campaign to indicate a desire on the part of the printing trade to form such a League, then active steps will be taken to formulate the proposition into concrete form. Should the movement not meet with the active coöperation necessary, the money sent in as dues will be returned to the senders.

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Mr. A. H. McQuilkin, Editor THE INLAND PRINTER, *No. 130 Sherman street, Chicago, Illinois:*

I, The undersigned, hereby apply for membership in THE NATIONAL LEAGUE OF AMERICAN PRINTING PLANTS and enclose twenty-five cents (25 cents) for the first month's dues. I represent the ....., a printing plant located at ....., and I am financially interested as owner or part owner of same.

(Signed) .....

When the man of Bible days was asked how his sight was restored, he simply said: "This one thing I know, that whereas I once was blind, now I see." And he kept repeating it to all inquirers. I can say no more myself. This one thing I know, that whereas most of the employing printers once dreamed that they could lift themselves out of the blind conditions surrounding them through the salve of present trade organizations, that now they see that all such efforts are fruitless. Some form of help other than that at present existing must be had. If this new league will do it or help to do it, what a blessing it will be! "The way to resume is to resume!" The way to test the matter is to try it. I firmly believe that out of it will grow an organization of mighty power for good.

Such excellent suggestions as that made by Mr. Schott in your March number could be taken up and submitted in detail to the membership for vote by mail. Gradually there would grow up a most valuable "suggestion department," which alone would be worth the effort. Furthermore, the league would have the hearty coöperation of the employees, for they would know from the beginning that the new organization was not to be "agin 'em." With this friction removed, the machine would run much more smoothly. Then each member would feel that there was no insidious effort being made by some outsider — supply man or other — to undermine the effectiveness of the plans decided upon.

On the basis suggested, every master printer in America could join the league. The cost is infinitesimal and yet the accumulation of "quarters" each month, were the membership of effective size, would be ample for administrative purposes. The singleness of purpose of the organization should endear it to the hearts of all owners of plants, and will. With a huge membership, transacting its business once a month by mail, a really workable plan for a universal scale could be arrived at.

Personally, I thank the many who have said kind words of me and of the plan outlined.

PUTNAM DREW.

BELATED CONFERENCES.

To the Editor: WASHINGTON, D. C., March 5, 1906.

The fact that printers generally devote too little attention to what is doing in craft circles was brought to notice recently; and they pay dearly and pecuniarily in inconvenience for their inattention. The occasion I refer to was a conference on the eight-hour day between employers and employees. The former had reached the point where they were willing to concede the demand on the step-at-a-time method — lopping off twenty minutes now and twenty more at some future date, and so on. The men said it was impossible — the International Union would not permit them to do so. The other side thought that a rank injustice, totally unlike the customary attitude of the local union. The unionists smiled in a sickly sort of way and said, "It's the law." Rumor saith that of the fifteen to twenty at the conference table not one had a well-defined

notion of how such a condition came about — that the change had to be effected in a revolutionary way.

They hadn't "kept tab" on what the "statesmen" were doing, else they would have known that the treatment accorded the representatives of the Union at the Typothetæ convention and the assaults made on the Union thereafter in Chicago and other cities made a fight to the death inevitable. No defeat that could be inflicted on the Union would be comparable to the debilitating effects of a backdown in any particular. The Union was prepared to consider and debate any proposition previous to the onslaught. But some employers said, "No; we will not discuss the eight-hour question in any shape." Other employers noted the drift toward open rupture, smiled at the hot air of the agitators, and said, "Oh, it'll come out all right, anyhow. It doesn't interest me much; if they want fight, let them have it — they'll pay the freight." But these indolent ones are of necessity affected. They suddenly find themselves compelled to give eight hours, without the relief that the Union in the beginning was anxious to give. Employers who found themselves confronted by a stand-and-deliver demand from the Union should know that the men representing them — "their agents" — made any other demand impossible. The employers' true interests appear to have been shamefully betrayed in this movement. Reason would have prevailed, however, if the employers had kept an eye on the proceedings and warned the belligerents of what they were doing.

Had the conferees referred to been well posted on recent craft history, all of them would have known that the step-at-a-time method could not have been agreed to, and all would have been aware also on whose shoulders the blame rested. At the present stage, government through convention or committee seems the only method, and as yet the great majority are inclined to regard it as an easy and comfortable way of avoiding responsibility. We shall learn, however, that convention and committee teams are often composed of wild horses that will surely ditch the wagon if they are not well handled and carefully watched.

By the way, so far as I know, the idea of reducing the working hours gradually — twenty minutes a day — was first advocated by the late Mr. M. J. Carroll, in THE INLAND PRINTER, fourteen or fifteen years ago. It was pooh-poohed and generally ignored, but not a few of the "soldiers" of this war doubtless wish it had been adopted.

Meantime, if we have to do business through such an agency as a committee or a convention, it is wisdom to watch our representatives as closely as we do the enemy. One can do you as much harm as the other.

OBSERVER.

AN OBSTACLE TO DEVELOPMENT.

To the Editor: KANSAS CITY, MO., March 13, 1906.

I am one of those pressmen who have learned the trade in a country town, and on that account I have had a chance to learn the work of a printer in the other branches, typesetting, job printing and ad.-setting. I want to learn the Linotype machine, and think I can join the Union. But if I do not make a go of it I may have some trouble in getting back into the pressmen's union again, though I understand that the International Pressmen's Union have an open-shop agreement with the employing printers. It seems to me that the two unions should have some plan of interchange of cards, and not compel a man to kill one of the resources he has to make a living and put hindrances in his way. If the pressman who has a fair education and has picked up enough of the way type should be put together to warrant him in trying to learn the Linotype, his acquaintance with machinery encouraging that hope, it looks as if the unions should help him in that ambition. If the I. T. U. could let down the bars to pressmen, the I. P. P. & A. U. could reciprocate, for there are some compositors that I know of that might like to take up press-work. I think this would be fair enough and give the men a chance to adjust their circumstances as things change with them. If there is any reason why the unions should not have an agreement of this kind, I would like to know it.

PRESSMAN-COMPOSITOR.

PARIS NOTES.

BY OUR SPECIAL CORRESPONDENT.



STILL the most momentous question in the French printing world is the agitation for a reduction of hours from ten to nine per day. The national organization of working printers, unlike the national federation of workers, which has boldly pledged itself to obtain an eight-hour working day from May next, is striving to obtain a reduction of one hour per day only, and toward this end entered into negotiations with the Union of Master Printers of France. A preliminary conference between the men's union and the employers' society has just been held with a negative result. The union leaders are certainly disappointed at the outcome of this meeting, for they had hoped that an entente would be arrived at by which the nine-hour day would be secured for May 1, and other reforms obtained at a later date. The eventuality of the failure of this conference has not, however, been overlooked, and the activity which has been displayed by the union for months past is now being doubled. Funds are being increased by a special levy, the entire country has been mapped out into districts to be visited by delegates from the central union, members recently expelled for arrears of contributions are being taken into the fold again at a considerably reduced entrance fee, non-unionists are being carefully looked after, and women compositors are in some cases being accepted in the unions. In this connection opponents of unionism declare that the tactics are not altogether honorable, and that in centers where women form the majority of the workers they are being received into the hitherto exclusive ranks of the males with effusion; where they are small in numbers and unorganized, efforts are being made to turn them out of the trade. The unions can already claim two victories, one at the town of Nantes, where a majority of employers has agreed to the principle of a nine-hour day, and at Rochefort, where the reduction has been obtained in all the printing-offices since January 1. A similar walk-over can not be expected throughout France, and even if obtained, the nine-hour day will only be secured after a keen struggle. In the matter of organization the unions have an advantage over the employers, but there are elements of discord among the workers in the form of non-unionists, women compositors and the "Jaunes," or Catholic trade unions.

AN interesting legal point has been settled by the higher courts in connection with a dispute between employer and employees. At the town of Limoges six compositors went on strike on the refusal of the employer to agree to the tariff and regulations adopted by the printers of the town. The union supported the men, and after some negotiations the office was closed to all union workers. Thereupon the employer brought an action for damages against the union, but lost his case. An appeal was lodged, the employer declaring that Article 416 of the penal code, which declares that "threats of strike by a trade union toward an employer are not illegal unless accompanied by violence, menace or fraudulent manœuvres," had been violated.

Scenes of disorder, songs and articles against the employer were admitted, but the court found that there had been no menace, and dismissed the appeal. The union order to the men was "leave the closed shop or be expelled from the union"; had "or you will be expelled and we shall prevent you obtaining work elsewhere" been inserted the judicial decision would have been different.

Apropos of legal matters, a recent decision of the courts has decided who shall have the pleasure of printing the four-page black-bordered circular which custom has ordered

which must be respected even by honorable deputies. In his official capacity of mayor the deputy refused information to the *Echo des Marchés* which was given to rival papers. Thereupon the journal in question brought an action for damages and won the day.

Eighty-five original Rembrandt copper plates have been discovered at Paris. The plates, which are for the most part in an excellent state of preservation, were formerly in the Mariette collection, and have for a long time been actively searched for. Among them are such



HOME OF THE SPECKLED TROUT, ALGONQUIN NATIONAL PARK.
OTTAWA DIVISION, GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

shall be sent to all your relatives and friends when you are no more. The law makes provision for your interment by charging the commune to make arrangements for burials. This body disposes of its monopoly to one or more contractors, who provide all that is necessary at prearranged prices. At Amiens the funeral contractor not only undertook all the essential work stipulated in the law of 1904, but publicly announced that he had the exclusive right of supplying funeral cards and other extras left by the law to private enterprise. As a consequence, the local printers' association sued the contractor and obtained $400 damages. The decision will be welcomed by hundreds of small printers in France making a specialty of this class of work, for in other towns than Amiens contractors have endeavored to appropriate the printer's work to their own advantage.

Deputy Dufour, who is also mayor of one of the towns in his department, has been taught that the press has rights

important works as "The Descent From the Cross," "The Resurrection of Lazarus," and "The Death of the Virgin." No sooner were the plates discovered than doubts were cast on their authenticity, the manufacture of "original" plates by great masters being quite a profession in Paris. *L'Artiste*, which discovered the plates and presented them to the Municipal Art Department of Amsterdam, declares emphatically that they are Rembrandt's originals, supporting its statement by a history of the engravings from Rembrandt to the present day, by comparison of the proofs pulled with those held by the Bibliothéque Nationale at Paris, and by the testimony of M. Bredius, director of the Museum of La Haye.

The firm of Derriey & Cie are about to deliver to an important Parisian daily newspaper the largest rotary printing-press ever made in France. It is a four-reel double-width machine with four folders, and having an out-

put of 90,000 eight-page papers, printed, inserted, pasted and folded an hour. The size of a single page is 25 by 21 inches, and the height of the machine is 21 feet. At the *Journal des Débats* a new mechanical folder has been installed by Marinoni, which delivers the paper completely folded ready for mailing, entirely abolishing the hand-fold. The journal has made provision for the workpeople thus displaced.

FRENCH newspapers appear to thrive much more readily in Germany than do foreign papers in the land of liberty, equality and fraternity. According to statistics, there are 814 French journals in Germany, against seven thousand odd German newspapers. English journals number 938, Danish 243 and Dutch 180. Nothing approaching this is to be found in France; probably in the whole republic not more than fifty papers — big and little — are printed in the English language, and other foreign tongues are even less numerous.

INDUSTRIOUS little Belgium appears to be troubled with cut-throat competition quite as much as its republican neighbor. At Brussels efforts are being made to eradicate the intermediary who has such a powerful influence in the lowering of prices and the quality of work. As an indication of the absurdity of competition one has but to read the following extract from a Belgium printer's announcement: "One hundred visiting cards, carefully printed on thick ivory cards of the finest quality, in box, lithographed, 50 cents; letterpress, 20 cents; a present of twenty-five card cases is given with each order; illustrated post-cards, 1 cent instead of 2 cents; funeral letters (4 pp. quarto) 80 cents per 100; twenty-five ball posters and 1,000 cards, $1.40. All printed matter cheaper than formerly; discount, two per cent." The case is certainly an exception, but the unfortunate matter is that instead of allowing such individuals to ruin themselves in the shortest possible time there are always to be found weak-headed printers who will endeavor to follow in their wake and bring loss on the whole trade.

M. LLHUILLIER, foreman at the Imprimerie Chaix, one of the largest and most important printing-offices in Paris, has been awarded the J. B. Dumar medal by the Société d'Encouragement Pour l'Industrie Nationale. The medal, only one of which is given in the whole of France each year, is awarded to the person who, having entered an important business firm as apprentice, has by his own efforts reached the highest position possible for him to attain, and has an unbroken record with the firm. M. Llhuillier, born in 1861, was apprenticed in the Chaix printery in 1874, became a workman in 1879, was made a foreman at the St. Ouen branch in 1884, became under-foreman at the central works in 1886, gained a gold medal at the international exhibition in Paris in 1900, and the same year was nominated foreman. In 1902 he received the decoration of the palmes from the National Academy and has lastly received the J. B. Dumar medal at the hands of the President of the Republic.

THE opponents of the National Printing Works — among whom are to be found most of the employing printers of France — have discovered another cause for grievance in the voting of a supplementary $240,000 for the installation of the new national printery. A first credit of $400,000 was voted for the erection of the new building, including purchase of the land, but this was only sufficient for the erection of the works. Now that the building is complete, $240,000 more have to be found for the installation. In this is included $150,000 for an electric generating station, which is specially attacked by the opponents of the Nationale, for they declare that one of the advantages claimed for the new site was that electric power could be obtained cheaply from a neighboring station without any initial outlay.

Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.

AT the time of writing we have just come through the hurry and bustle of the general election, and printers, papermakers and ink dealers have prospered for a few weeks and made money easier than it is usually made, there being seldom a call for estimates or cutting of prices when posters or circulars for a parliamentary candidate are wanted. It is all over now, however, and Parliament has met and is settling down to its work, the working majority of the Liberal party being the greatest on record. A curious thing at the election just over is the number of seats that have been captured by members connected with paper and print. It is quite safe to say that at least a half of the whole of the new members are in some way connected with printing, papermaking, journalism, or authorship. For the first time in the history of the British House of Commons it has a "Labor" party that consists of some thirty members, pledged to look after the interests of the workmen, and in this coterie there are not a few working compositors and printers, including Mr. C. W. Bowerman, the general secretary of the London Society of Compositors, who has been returned to Parliament for the Deptford division of London; Mr. Frederick Maddison (Burnley), J. P. Nannetti (foreman of the *Freeman's Journal*, Dublin), T. Summerbell (Sunderland) and Mr. G. H. Roberts (Norwich). Mr. G. D. Kelley, the general secretary of the Amalgamated Society of Lithographic Printers, has also been elected as M. P. for one of the Manchester divisions. Besides the working element, there is quite an



LONDON CHIMNEY-POTS.

army of employing printers, papermakers and others in the trade that have succeeded in getting the much sought after initials of "M. P." after their names. In a trade paper there is no place for politics, but it may not be out of place to remark that "protection" has received its quietus, and that "free trade" will still allow American manufacturers to hold and increase the market they have established in Great Britain.

THERE passed away the other day one of the oldest members of the craft in Newcastle-on-Tyne, in the person of Mr. George Bell Beveridge, who had nearly attained the ripe age of fourscore years. He was engaged on the composing staff of the Newcastle *Chronicle* for about thirty years, and during that period he rendered active and useful service to the cause of trade-unionism in many directions. He held the position of president of the Newcastle branch from 1874 to 1877, and in 1879 he was elected branch secretary, which office he occupied with credit to himself and benefit to the association until 1892. In the latter year he was appointed organizer for the North of England and Wales, and in this capacity he accomplished much good pioneering work under circumstances of difficulty such as would have disheartened any one less earnest. Mr. Beveridge was one of the three printers invited to meet the Prince and Princess of Wales (now the King and Queen) at a public banquet given on their visit to Newcastle in 1885. He was one of the earliest workers in the movement to establish the Newcastle Coöperative Printing Works, of which he was at one time manager and overseer.

THE London Society of Compositors has been in communication with the Master Printers' Association regarding certain proposals submitted by the society with regard to overtime work. The representatives of each organization are also discussing, with a view to friendly and final settlement, proposals from the men's society for the fixing of piece rates for Monotype machine composition. A number of alterations are suggested, and it is not anticipated that there will be much friction with the employers, who of late years have always been pleased to accede to any of the reasonable demands of the men.

THE mention of the employers in the preceding paragraph is a reminder that this year the annual conference of the Master Printers and Allied Trades Federation of Great Britain and Ireland will be held at Leeds, in which city the Master Printers' Association has appointed a committee to arrange for the reception of their brethren from all over the kingdom. The Federation meeting will take place in May, and the committee intend to give all comers a right hearty Yorkshire welcome. Among other things, arrangements have been made for a reception by the Lord Mayor; a visit to the machine shops of Otley, the home of the Wharfedale and other printing machines; excursions to Bolton Abbey, Upper Wharfedale, Ripon, Studley Royal, Fountains Abbey and Harrogate, and the usual Federation dinner. These gatherings correspond to those of the American Typothetæ, and as much business and pleasure is crowded into a few days as serves the members with a topic for small talk during the ensuing twelve months.

THE printers of Modern Athens, as Edinburgh people like their city to be called, are up in arms against American copyright laws and hostile tariffs. There is a general condition of discontent and unrest in the trade, and, as one authority puts it, when it is considered that there must be something like $1,200,000 of wages paid in the year in the printing trade of Edinburgh, this trade can hardly be considered "a small matter." This, of course, includes the wages of the whole trade. What the printers complain of is that books are set up in America and the plates are sent to this country. To give a specific example of how this affects the trade: Only the other day a printing-office in Edinburgh, after having estimated for a book, the composition of which came to between $1,250 and $1,500, had to post the work to America, where it is now being set. This represents a loss of the work of fifteen compositors for twelve weeks, to which extent the men have lost. One of the principals of Messrs. Ballantyne, Hanson & Co., a leading firm of Edinburgh printers, says that the Chace Copyright Act grants copyright to the British author, thus giving him the undoubted advantage of a second market for the sale of his works. But to this privilege is attached the condition that his book shall be printed from type set in the United States. The effect of this arrangement is that when a British author wishes to secure the sale of his book in America he has it set up and produced in that country, and has copies or stereotyped plates sent over to this country free of duty. Whenever such a proceeding takes place, the British printer, who lives under the same laws that have given the British author the privilege of copyright in this country, loses the manufacture of a piece of work which, previous to the American act, would have come to him. What remedy is to be suggested for this state of affairs no one knows, and certainly the Edinburgh malcontents can not influence the legislators of a foreign country to pass acts for their pecuniary benefit, and so they must keep on grumbling or else reconcile themselves to the situation and be thankful that what is their loss is their American brethren's gain.

THE recent deaths of two newspaper proprietors in England have been made more noticeable than they otherwise might have been by the bequests left in their wills to their employees. A lady, Mrs. E. M. Pike, the senior proprietrix of the Derby *Daily Telegraph*, whose estate was sworn at $250,000, left $5,000 each to the manager and the editor of the paper; $2,500 to three other members of the staff, and $250 to every employee of ten years' standing. Mr. John Feeney, the proprietor of the Birmingham *Daily Post*, has also been a benefactor of his workers, and has left to the newspaper staff, comprising editors, subeditors, reporters, salaried correspondents, clerks and foremen of departments, who should be in his employ at the date of his death, and should have been so employed for at least five years preceding that date, a sum equal to three months' salary each, and to all operators, machinists and other workingmen in his employment at the date of his decease and in receipt of weekly wages, a sum equivalent to three weeks' wages. It is not often that one hears of such bequests to the workers, and it is hoped that other employers of labor will follow suit.

A NEW company has been formed in England to acquire the patent rights in a new automatic feeder, which is a German invention. It is of the "suction" type, is said to work very well, and will be manufactured by the well-known Otley firm of Payne & Sons, the inventors and builders of the original Wharfedales. The machine has been called the "Universal Paper Feeder," and a number of orders have already been booked.

AT a meeting of representatives of London daily newspapers, and of the National Amalgamated Society of Printers' Warehousemen and Cutters, it has been agreed, as regards hands employed in the publishing department, that the future wages shall be $7.50 for a forty-eight-hour week of six nights (an eight-hour night with one hour off), overtime pay after eight hours to be 16 cents per hour; the hours to be fixed by the house, and during them the men to do any work about the warehouse. Men thus regularly employed are not to work at other houses. The society

undertakes not to interfere with any non-unionists employed, and the agreement is to run for five years.

THE extensive photoengraving businesses carried on by Carl Hentschel, at Fleet street, London, and at Norwood (where the three-color blocks are made) are about to be combined and formed into a limited liability company, with a considerable amount of capital, and before these lines are in print the new concern will probably be an established fact. The Hentschel business claims to be the biggest in the world solely devoted to the production of printing blocks, not even excepting the United States, which has the reputation of producing "the biggest things on earth." It does an enormous business, turns out high-class work, and has had up till now a remarkably successful career, which may be attributed to the energy and "go" of its chief.



WHITEFISH FALLS, WHITEFISH RIVER, NORTH SHORE OF THE GEORGIAN BAY.
GRAND TRUNK RAILWAY SYSTEM AND NORTHERN NAVIGATION COMPANY.
Photo by J. W. Swan, Montreal.

A NOVELIST ON PUBLISHERS.

At the Franklin Inn, a literary club, a man in worn, but neat, well-mended garments — a novelist, in fact — was condemning publishers:

"They are," he said, "no good. There was not any international copyright until a short time ago, and if you, an Englishman, spent ten years in writing a masterpiece, I, an American, could steal that masterpiece, publish it in the United States, and get rich on the profits, without breaking any law, and without allowing you a cent. It was the publishers who were responsible for this nefarious condition. They piled up great fortunes upon stolen books.

"We have to-day an international copyright law. But our copyright, *per se*, is still unjust, for it only lasts a certain number of years. Why shouldn't an author's possession of his book last for ever, like a householder's possession of his house? Why, indeed, except that the publishers want the profit.

"When 'Uncle Tom's Cabin' appeared, there was no international copyright, and two British publishers brought out large editions of the work simultaneously. Each edition, I believe, consisted of 50,000 copies, and the publishers were scared about their sales.

"The more rascally of the two men hit, in his terror, on a fine device. He advertised all over England that in one of the volumes of his mammoth 50,000 edition of 'Uncle Tom's Cabin' a banknote for £50 had been placed by mistake, and he offered a reward for the note's return.

"By Jove, sir," the novelist added, "this man's edition sold like hot cakes — was all gone before his rival's edition had fairly gotten on the market.

"Such are the methods of publishers. No wonder we artists are powerless in their grasp."— *Minneapolis Journal.*

ENNYHOW, this speling reform bizness is likely 2 hav ruf sleding before it gets thru.— *Chicago Tribune.*

BUSINESS OFFICE

BY EDEN B. STUART.

Under this head will be discussed ideas from all classes of printers, rich or poor, large or small, prominent or obscure, so long as their ideas are of practical value and along this particular line of work. Do not hesitate to consult this department on any problem of estimating that may arise. Printers are urged to forward particulars of any work that will prove of interest and assistance to the trade and to the sender. Address all communications to The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

HINTS FOR YOUNG PRINTERS UNDER EIGHTY.— By W. A. Willard. A discussion of the cost of printing. 50 pages, paper, 50 cents.

EMPLOYING PRINTER'S PRICE-LIST.— By David Ramaley. New edition, based on nine-hour day. An excellent book to use as a basis for correct prices to charge on any kind of printing, $1.

CHALLEN'S LABOR-SAVING RECORDS.— Advertising, Subscription, Job Printer's. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING.— By J. Cliff Dando. The scope of this book is indicated by the title. Has been unqualifiedly indorsed by users throughout the world. $10.

ORDER BOOK AND RECORD OF COST.— By H. G. Bishop. The simplest and most accurate book for keeping track of all items of cost of every job done. Contains 100 leaves, 10 by 16, printed and ruled, and provides room for entering 3,000 jobs. Half-bound, $3. Must be sent by express at expense of purchaser.

CAMPSIE'S VEST-POCKET ESTIMATE BLANK-BOOK.—By John W. Campsie. By its use there is no chance of omitting any item which will enter into the cost of ordinary printing. By its use a proper profit can be made on every job taken. Used by solicitors of printing in some of the largest offices in the country. 50 cents.

STARTING A PRINTING-OFFICE.— By R. C. Mallette. Contents: the Printer as a Business Man, selection and Location of Plant, The Business Office, The Composing-room, The Pressroom, Light, Power and Heat, The Stockroom, The Book of Samples, Entering the Order, The Job in Process, Determining Cost, Bookkeeping, Preparing and Giving Estimates, Collections and Payments, Advertising and Office Stationery, Employer and Employees, Small Economies and Time-savers. 88 pages, cloth, $1.50.

PRINTER'S ACCOUNT BOOK.—A simple, accurate and inexpensive method of job accounting that is in use by hundreds of prosperous printers. It shows cost of each job, what should be charged for it, what profit *should be* made on it, what profit *is* made. Flat-opening, 10½ by 14½ inches, substantially bound, with leather back and corners; 400 pages, 2,000 jobs, $5; 200 pages, 1,000 jobs, $3.50. Specimen page and descriptive circular on application. Must be sent by express at expense of purchaser.

PRINTERS' INSURANCE PROTECTIVE INVENTORY SYSTEM, by Charles S. Brown. A blank-book 11½ by 15 inches, with printed headings, superfine paper, special ruling. It is a classified and *perpetual* inventory system, and informs you of your plant value every hour of the day, every day of the week, every week of the month and every month of the year. No. 1, loose-leaf, for large job or newspaper offices, $25; No. 2, for newspaper offices only, $15; No. 3, for job offices only, $15; No. 4, for small job and newspaper offices, $10.

NICHOL'S PERFECT ORDER AND RECORD BOOK is one of the most useful record books for printers running offices of moderate size that has ever been published. It serves both as an order book and a journal, no journalizing being necessary, making a short method of bookkeeping. By using this book you can learn at a glance whether orders are complete, what their cost is and if they have been posted. Once entered in this book, it is impossible to omit charging an order. Size, 9 by 12 inches; capacity, 3,000 orders; $3. Must be sent by express at expense of purchaser.

A MONEY-MAKING SYSTEM FOR THE EMPLOYING PRINTER.— By Eden B. Stuart. Contains chapters on: The Value of System, The Job Envelope, Individual Composing-room Ticket, Stock-cutting Order, Pressroom Job Ticket, Individual Press Report, Bindery Time Job Ticket, Bindery Job Report, Office Job Ticket, Individual Bindery Ticket, Pressroom Job Record, Presswork Record, Job Cost Record, Order Blanks, Enclosure Slip Estimate Memorandum, Pay Ticket, Daily Financial Report, Requisition Sheet, Bookkeeping, Perpetual Stock Balance Sheet, Profit and Loss Statement, Summary of Uncompleted Work, Stock Used Check, etc. Cloth, $1.

HOW TO MAKE MONEY IN THE PRINTING BUSINESS.— By Paul Nathan. Contents: The Printer as a Business Man, Starting an Office, What Class of Customers to Seek, How to Develop Business, Writing Advertising Matter, Taking Orders, Advertising, How to Talk to Customers, Cost of Producing Printing, Estimating. Acquiring Money, Pricecutting, Competitors, Profit and How It Should Be Figured, Buying, Doing Good Printing, Composing-room, Pressroom, Business Office, Bookkeeping, Management of Employees, The Employee's Opportunity, Danger in Side Ventures, Systematic Saving, Partnerships, Leakages, Keeping Up with the Times, Suggestions from Others. 375 pages, cloth, $3.

ACTUAL COST IN PRINTING.— By Isaac H. Blanchard. Contains full description of the purpose and use of all the blanks and records, together with complete cost-figuring tables in blank for the purchaser's own use; in the rear of the book are the necessary ruled pages for taking off the annual or semi-annual inventory of the plant, so that absolutely correct figures may be established and the records kept permanently in the office files; a set of tables of calculations on the 5-minute-unit basis; a set of tables of calculations on the 6-minute-unit basis; a complete set of the loose blanks described in the book; one full bound copy of the summary record book for all the departments, sufficient for one year's use in the office, $5. Style 2.—Annual Tables for Printers and Binders. Every practical printer insists on revising his cost figures each year, and for that purpose the cost-figuring tables, together with the blank sheet for use in annual inventory, have been bound together in convenient book form. $2.

COST OF PRINTING.— By F. W. Baltes. Contents: Forms — Job Tag, Job Book, Bindery Tag, Compositor's Daily Time Tag, Total Time on Job in Pressroom, Total Daily Time in Pressroom, Daily Register of Counters, Foreman's Daily Press Record, Form Tag, Time Book, Day Book, Journal and Cash Book, Job Ledger; Tables —Weekly Summary of Labor, Monthly Register of Counting Machines, Monthly Summary of Press Records, Statement of Wages and Expenses, Cost of Time in Composing-room, Cost of Piecework, Cost of Work on Cylinder Presses, Cost of Work on Job Presses; Measuring Dupes, Paid Jobs, Legal Blanks, Monthly Statement of Loss or Gain, Inventory Books, Notes. Samples and Prices. 74 pages, cloth, $1.50.

A QUESTION.

Readers of this journal will please write out carefully and mail to me opinions on the following question: "If for the sake of convenience and economy, an $18 man is put on work of a $6 girl, is, or is not, the cost of production thereby increased, and how should it be accounted on the completed job?"

LINOTYPE COST AND PROFIT.

A printer in the East writes as follows: "I have been much interested in your articles on cost of production, and would be pleased to have your private opinion on what the cost price to me of producing one thousand ems of type of the various sizes specified, and what you figure is a fair profit thereon. The plant is a two-machine one, and inventories at $8,600, including metal in stock. The productive labor consists of two machinist-operators at $27.50 each per week, six days of eight hours each. The non-productive expense, based on experience of the past year, is about as follows:

Interest on inventory cost, at six per cent	$ 516
Depreciation on machines	100
Depreciation on matrices, general plant, etc.	150
Rent	300
Power and light	150
Machine helper (boy)	125
Telephone	60
Insurance	90
Gas	120
Hauling, etc.	50
Metal, depreciation per year	100
New metal	150
Miscellaneous	125
Repairs	50
	$2,086

Now, I realize that one great problem in computing this actual cost per thousand ems depends much on condition of machinery and capability of the operators. I think a fair basis for computing the product of my plant of carefully set, corrected and revised matter is as follows: Six and eight-point, at four thousand ems per hour (say thirty thousand a day). Ten-point, about twenty-seven thousand per day. Eleven-point, about twenty-four thousand per day. Naturally, these estimates will vary, but I believe the above is a fair estimate for good work, per eight-hour day. On the basis of the foregoing figures, I would appreciate you giving me your ideas of what the cost price, with fair profit, on the three sizes of type should be; and would also appreciate your opinion on any item of non-productive expense which you think is out of proportion."

Answer.—You estimate your total non-productive expense for a year at $2,086. There are many small expenses which you do not itemize, but no doubt they are included in your charge of "Miscellaneous" which seems to be very fair.

In order to arrive at the unit cost, you must get the expense down to days or possibly to hours. We will do both. It will not be possible to reduce the items to unit cost, taking the plant and work turned out as a basis, for you will find the cost different on each size of matrix, owing to the variation in output between them.

Your unit cost must be based on three hundred operating days in the year, which is, therefore, $6.95⅓ per day.

This is approximately 37 cents per hour, general, or non-productive expense.

Your productive cost per hour is approximately 57¼ cents, delivering to you four thousand ems six or eight-point. Your total cost is close to $1.45 per hour, or $11.60 per eight-hour day. Dividing this by your output brings the cost of one thousand ems six or eight-point to 36⅔ cents. These are, of course, according to the output as stated in your letter, thirty thousand ems, twenty-seven thousand ems and twenty-four thousand ems respectively.

The proper addition to make for profit depends very much on conditions. If you do some productive work that will be let to the lowest bidder, your margin of profit must necessarily be closer. Your business ought to net not less than twenty per cent on investment.

Your items of depreciation are small, it seems to me. Ten per cent on machines and plant ought to be allowed. There is also some doubt about putting in depreciation on metal and an allowance for new metal also. Your inventory includes metal on hand and this will no doubt be about the same one time of the year as another. Then, too, you no doubt sell some, which repays you for what you will add from time to time, will it not?

For your depreciation, figure ten per cent on your



CACHE LAKE, ALGONQUIN NATIONAL PARK.
OTTAWA DIVISION, GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

that is then accounted for, but you leave that item out of your schedule, as also do you the item of taxes. As stated above, you omit many proper allowances from your list, such as reading proof and other office help (bookkeeper, collector and other unproductive labor). Your own salary should be included in the schedule, for the amount of time you give to the business.

Considering all these things, I can not say the figures above are actually correct. The method of arriving at the result is shown, however, and you can easily make necessary corrections.

Profit should be added that will show a good return for the amount of investment and amount of work you market. It is all very well for some to suggest the "one-price" principle, but this can not be carried out satisfactorily in such a plant as yours. Conditions surrounding each job must be considered, and if you are figuring on a large job machinery and metal equipment — in fact, on your inventory leave out "new metal" (this is really addition to equipment); allow for your own salary and all other unproductive labor mentioned above, and in ascertaining these general expenses avoid taking round-number guesswork, but keep your records so that the *actual* expenditures may be ascertained for any given period.

A BOOKLET.

G. H. Grant, Stillwater, Minnesota, writes: "I am enclosing a sample of a job that called forth a strong argument regarding the price to be charged for same. Will you please give me a conservative price, in your judgment, and greatly oblige a long-time subscriber to THE INLAND PRINTER? Five thousand copies; size of stock 21 by 33, costing $12 per ream; worked four pages at a time on a pony cylinder — because the paper would not cut to advan-

tage to work eight pages — the color on the first page being worked on a Gordon jobber. I would be greatly obliged to you if you would please make your estimate at as early a date as possible, as I wish to convince the customer as to the price, and submit to him the estimate of the best printers' journal in the world."

Answer.— Size of booklet, 3½ by 6, trimmed; eight pages:

750 sheets stock	$18.00
Ink, ½ pound, at 50 cents	.25
Wire, 2 pounds, at 10 cents	.20
Composition, 7,300 ems eight-point, 10 hours, at 22½ cents	2.24
Make-up, 1½ hours, at 22½ cents	.34
Lock-up, 3 forms, 1½ hours	.34
Make-ready, 3 forms, 3 hours (pressman and feeder)	1.35
Feeding, 15,000 impressions	2.25
Folding — two 4-page forms, 10,000 folds, 8 hours	.80
Inserting, 5 hours	.50
Stitching, 10 hours	1.00
Trimming, 4 hours	.50
Wrapping and delivering	.15
One hundred per cent general expense on productive labor	9.47
Twenty-five per cent profit on total	9.35
	$46.74

You could have saved time had you run the job in one eight-page form, both in binding and presswork. It is a very neat job throughout and should please your customer regardless of price. You used very fine stock for a job of this kind, which, of course, accounts for the apparently high price you speak of.

PROGRAMS.

One thousand copies; thirty-four pages and cover; size, 6 by 9, upright; type page 23 by 41 ems pica; black ink throughout; inside stock 25 by 38—70, enameled book; cover, enameled one side, 20 by 25 — 50; side wire-stitched, with glued cover:

2 1-5 reams, at 7 cents per pound	$10.78
½ ream cover-stock, at $3.75 per ream	1.88
Two per cent loss on paper stock	.25
Ink, one pound	.50
Twenty-five per cent profit	3.35
Composition — 9,100 ems eight-point, 13 hours, at 18½ cents	2.41
24,518 ems twelve-point, 35 hours, at 18½ cents	6.48
Make-up — 37 pages, 6 hours, at 18½ cents	1.11
Lock-up — eight 4-page forms, 4 hours, at 18½ cents	.74
One 2-page form, ½ hour, at 18½ cents	.09
Cover, 2-page form, 1 hour	.19
Make-ready — eight 4-page forms, 16 hours, at 18½ cents	2.96
Two 2-page forms, 2 hours	.37
Cover, one 1-page form, ½ hour	.09
Feeding time, 11,000 impressions, 12 hours, at 18½ cents	2.22
Hand folding, 12 hours, at 10 cents	1.20
Gathering, 5 hours	.50
Covering, 5 hours	.50
Stapling, 3 hours	.30
Trimming, 2 hours	.37
Wrapping and delivering	.50
2,000 staples	.50
Twenty-five per cent profit on staples	.13
One hundred per cent general expense added to productive labor	20.03
Twenty-five per cent profit on productive labor and general expense	10.02
Total	$67.47

You do not give very much information as to your methods and equipment, and I have had to assume much that might not agree with conditions as they really are in your office. However, the method is shown and any necessary changes in the rate paid for labor other than that stated you can readily change yourselves, but basing the cost on $10 per week for all work outside of the bindery, the cost will probably come up to that in above estimate.

The same conditions on this business exist in the estimate following, in the case of which much was assumed which might make a great difference in the result provided the conditions were very much different from those on which the estimates are based.

One thousand "History Outline"; S. & S. C. book, 25 by 38 — 60; cover, S. & S. C., 20 by 25 — 65; eighty-two pages and cover; size, 6 by 9, oblong; type form, 30 by 43 ems pica; side wire-stitched, with glued cover; all in black ink:

5¼ reams, at 4 cents	$ 12.60
½ ream cover, at 5 cents	1.63
Two per cent loss on paper stock	.28
Ink, 1½ pounds	.37
Twenty-five per cent profit on stock and ink	3.72
136,500 ems eight-point, 228 hours, at 18½ cents	42.18
9,030 ems twelve-point, 16 hours, at 18½ cents	2.96
Make-up, 67 pages, 17 hours	3.15
Lock-up — forty-one 2-page forms, 7 hours	1.30
One 1-page form, ¼ hour	.05
Make-ready — thirty-eight 2-page forms, 19 hours	3.52
One 1-page form, ½ hour	.09
Feeding time, 42,000 impressions, 42 hours	7.77
Gathering, forty-one forms, 25 hours	2.50
Folding cover, 2 hours	.20
Stapling, 3 hours	.30
Covering, 5 hours	.50
Trimming, 2 hours	.37
Wrapping and delivering	.50
2,000 staples	.50
Twenty-five per cent profit on staples	.13
One hundred per cent general expenses	65.39
Twenty-five per cent profit on productive labor and general expense	32.69
Total	$182.70
Additional thousands printed at the same time	49.58

EIGHT-PAGE PUBLICATION.

R. D. Wilson, Beattie, Kansas, writes: "Kindly give me estimate on the publishing of one thousand copies of a four-column, eight-page publication on ordinary news stock. Make the price per issue. Probably one-third to be advertising and the balance ten-point type. Labor costs me $1.25 per day."

Stock, 22 by 32 — 30, print; run four pages and turn on a Diamond Press; eight pages, 11 by 16, upright; four columns, 14 inches long, to each page; no binding:

2 reams paper stock, at 3 cents per pound	$ 1.80
Ink, 1½ pounds	.05
Twenty-five per cent profit on stock and ink	.46
Composition — 36,360 ems ten-point, 52 hours, at 12½ cents	6.60
15,720 ems twelve-point, 22 hours, at 12½ cents	2.75
Make-up, 2 hours	.25
Lock-up, 2 forms, 1 hour	.13
Make-ready, 2 forms, 4 hours	.50
Feeding, 2,000 impressions, 4 hours	.50
One hundred per cent general expenses	10.63
Twenty-five per cent profit on labor and general expenses	5.31
Total	$28.38
Additional thousands run at the same time	3.56

This price is very fair if the conditions are as stated, and I should think it would raise no objection on the part of your customer. Of course, the method of production in your shop is expensive and under different conditions the job could be done somewhat cheaper.

J. Eben Whiton, St. Charles, Minnesota, writes: "I have been reading your department in The Inland Printer very closely and am deeply interested in the problems you are seeking to solve. I enclose a folder of twenty pages and I would deem it a great favor if you would give your estimate, in detail, of the net cost of pro-

ducing ten thousand copies. Paper is S. & S. C. book, 25 by 38—50 pound, and cost 5 cents per pound. It was printed in two forms, one sixteen-page and one four-page, the former printed on cylinder and the latter on jobber. Wages paid on the entire work at 25 cents per hour. Would also like you to give the proper selling price. Shop is a good country office, more than ordinarily well equipped, and is union."

Answer.—Ten thousand copies, saddle-back wire-stapled; trimmed to 3⅞ by 8¾; no cover; ten-point type:

10½ reams 25 by 38 — 50, at 5 cents	$ 25.25
Two per cent loss on paper	.51
Ink, 2½ pounds, at 15 cents	.38
Twenty-five per cent profit on stock and ink	6.53
Type page, 19 by 46 ems pica.	
Composition, 22,770 ems, 32½ hours, at 25 cents	8.13
Make-up, 20 pages, 3½ hours	.88
Lock-up, one 16-page and one 4-page form, 1 hour	.25
Make-ready, one form 8½ by 19, one form 16½ by 38, 5 hours	1.25
Feeding time, 20,000 impressions, 23 hours	5.75
Binding, 20,000 staples	4.00
Profit on staples, with two per cent for loss	1.10
40,000 hand folds, 50 hours	12.50
Inserting, 8 hours	2.00
Stapling, 25 hours	6.25
Picking up and counting, 2 hours	.50
Trimming, 10 hours	2.50
Wrapping and tying	.13
One hundred per cent general expenses on productive labor	40.14
Twenty-five per cent profit on productive labor and general expenses	20.07
Total	$138.12

The cost of this job could be figured lower by using cheaper help on the feeding and binding. You do not state whether the wiring was done with stitcher or stapler, so I figured on the latter. By reducing your productive cost of feeding and binding to 10 or 15 cents an hour, the job could be produced for close to $100. You can easily figure this out from above estimate.

A YOUNG PROPRIETOR PRINTER.

Joseph W. Geeting, Indianapolis, writes: "I have just joined the crowd and subscribed for the 'INLAND,' so take the liberty of asking for advice. I am a young printer of nineteen years, having been in the business for about three years. My shop consists of a 6 by 9 'Model' hand press, together with considerable type, rule, leads, etc., for a hand-press office. As the shop is in my home, I have no rent, labor, power nor fuel to pay for, so there I am rather fortunate. I have not made much progress, financially, on account of the ever troublesome word 'estimating.' Would you kindly arrange a 'scale' suited to my circumstances? What kind of advertising do you think would be most effective for such a shop?"

Answer.—You are of tender years to brush up against the world of printing competition, but there is no necessity of failure if you start at the right end of the business. Learn business management, study to be an executive and above all learn to estimate properly. When you ask us to arrange a scale of prices, you ask the impossible. You must learn this; if you have not, do so at once. This the proprietor-printer must know before he goes into business. You can be assisted by purchasing a copy of "Employing Printers' Price List," Ramaley, or a copy of the vest-pocket edition of "Prices for Printing," Baltes. You have much to learn yet, and if you have the good of your future at heart, you will take steps at once to learn the necessaries before too late. There are many ways to advertise; probably the best and most convenient for you would be to do good work. You ought to have little difficulty in getting all you can do by personal solicitation among your acquaintances.

GENERAL EXPENSE.

HOWARD C. GREGORY, Rockford, Illinois, writes: "In your October issue you give four methods of estimating on printing, under the 'Business Office' head. In Rule D you say, ascertain the percentage of general expense on your labor expense. I have done so and find it practically one hundred per cent. Now, you say, in figuring on a job, estimate your paper, ink, etc., and calculate the actual cost of the productive labor (what you pay the man per hour for his time) and then add one hundred per cent of the latter item for the general expense. This will give the cost. What I want to get at is, why should the general expense be greater for running a certain press one time than it would another, simply because the man who is running that press at one time is getting $13.50 per week, and another man running the same press at another time is getting $18 per week? You see in this way at one time it would cost 25 cents plus one hundred per cent, or 50 cents per hour, to run the press, while at another time it would cost 33⅓ cents plus one hundred per cent, or 66⅔ cents. According to this way of figuring it would not cost any more to run a 35 by 47 cylinder than it would a 10 by 15 jobber, providing the same man ran them both, but as every one knows this can not be true. The general expense should not, in my estimation, be any larger if the foreman ran a certain press or if the errand-boy does the work. And the same would be true in the composing-room, where you pay one man $12 and another $15 per week. I may not have your idea, or mine may be all wrong. In either case please let me hear from you, as I am interested in this subject."

Answer.—In former issues the vital importance of knowing of the element of General Expense, how to ascertain it and how to apply it, has been dwelt upon, and that understanding these three points thoroughly would be the means by which the printing trade could be raised to the position it should occupy in the commercial world.

Referring to Mr. Gregory's letter, quoted above, I will readily acknowledge that as with ideas of everything else of interest or of value to humanity, opinions of those who are progressive enough to become familiar with this much-discussed subject will differ. And further, that the disposition of the trade at large to look with disfavor upon ideas advanced by men who have studied the problem and who are doing their utmost to give their knowledge to the trade is doing more to retard the movement to better things than all other causes combined. Therefore, it is necessary that we have such arguments as the foregoing from printers everywhere, in order to "land somewhere" and on a basis that will be acceptable and adaptable to every class of printers.

To excite argument, I will ask this question: "Why should it cost more in *general expense* to operate a 35 by 47 cylinder than a 10 by 15 jobber, or a web perfecting press than the cylinder or a typesetting machine than by hand?"

The only method by which general expense can be directly applied to the equipment of a factory is by apportioning that expense to each machine or article or department according to the investment in that machine or department.

If any one machine or department suspends active operation for a time, the return of that portion of the general expense ceases for that inactive period. Upon the duration of the suspension of active and productive work depends the extent to which that loss of the return of the general expenses will be continued. Therefore, unless the total of

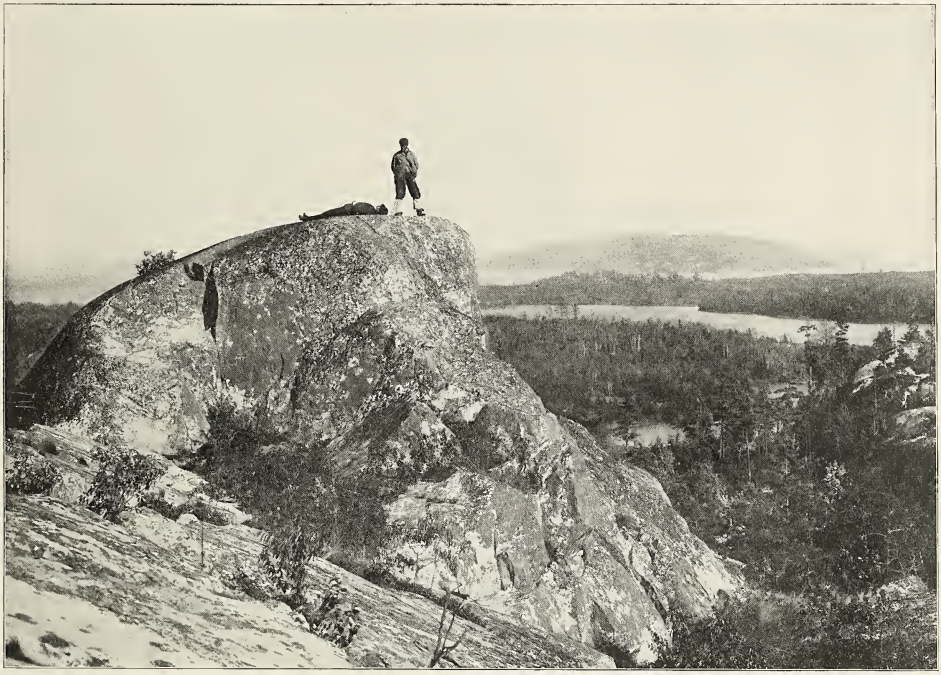
the working or productive hours for the entire plant is reduced to a small portion of the maximum under such a method, unless every machine or department — all parts of the equipment — are busy and occupied there is a loss in the general expense.

Now, everybody knows that especially in the printing plant the volume of work in hand is continually changing; some times of the year rushed and others slack. To balance this thing up in order to sufficiently cover the general expense it will be further necessary to apportion the expenses to each machine and department so that the varying conditions during the year will be satisfactorily provided for. In a way the expense will thus be greater in rushed times than when the volume of work in hand is small, because, although some departments may be running to overflowing, others will be practically closed down, and the general expense that should show a return from the inactive departments will not be returned until a rush in those departments comes again. This, understand, even in the face of there being just as large a force of productive labor in the plant taken as a whole and just as much work virtually being produced as at other seasons when all departments are busy. Work can be produced, as a rule, for less cost both as to general and productive expense in busy times than in dull times, which is contrary to this method of figuring.

Rule D, as explained in the October issue, provides for an elastic method of applying the general expense to every job produced. If all work should be done in the composing-room for a given length of time and other departments closed down for the same period, the general expenses will be provided for if proper judgment has been exercised in making the apportionments. If all work is done under similar circumstances in pressroom or bindery, or in any other *productive* department, the situation will equally well care for itself.

Time-worn customs and beliefs to the contrary, *the cost or size of a press should in no way influence or affect the cost of production of that press.* What has, does and always will control a cost of the output of a press, regardless of its size or value, is the *productive labor*, and that only; if the actual cost of a man's time is larger one time than another — *if the productive labor costs more one time than another* — it would, under this method, necessarily follow that there would be a corresponding increase in the general expense.

The same condition exists in any factory. In the machine-shop, for instance, it would be very difficult and in the most part impossible to spread general expense over the equipment where there are hundreds of machines of about as many varieties and spasmodically productive or active. A workman first works a lathe, then a drill-press or a thread machine — he may be continually changing the kind of work he is doing from one machine to another. How would it be possible to compute cost of a job under such circumstances correctly? Suppose you sell a man's time for a given period on some special work, how would the cost be ascertained? Would it not be necessary, as pre-



DREAMER'S ROCK, McGREGOR BAY, NORTH CHANNEL OF THE GEORGIAN BAY.
GRAND TRUNK RAILWAY SYSTEM AND NORTHERN NAVIGATION COMPANY.
Photo by J. W. Swan, Montreal.

viously stated, to have the general expenses apply to each department separately and possibly at a varying rate per hour? If so, and the man should labor in different departments (which often occurs in the smaller printing-offices), his cost would of necessity be different in each case. Is it not an indisputable fact that it would complicate the estimate to your customer?

Why is not a man's time just as valuable in the composing-room as in the pressroom, bindery, foundry, or any other department; whether he runs a 35 by 47 cylinder or a 10 by 15 jobber, or whether the rate of general expense in the various departments or on different machines is uniform or not? As long as a man receives 30 cents per hour for his time, it is worth as much to his employer and costs the same wherever in the plant he works.

In trying to make my position plain, do not misunderstand me when considering general expenses. Up to this point, bear in mind, we have had under discussion that one element — the relation of investment in equipment to the general expenses of a factory.

To digress for a time, I wish to call attention to the fact that there are two kinds of expense in every factory — productive and general, or non-productive. They are as different as directly opposite conditions can be and yet they have an absolute bearing on one another; each has its peculiar duties and functions, and where one is the other is always present also. This is an absolute and unavoidable condition.

So long as this is true, it is not only necessary to consider both equally and under same circumstances, but an impossibility to fairly compute cost correctly without doing so. In laying out your general expense for any period — in determining what your rate will be — the *maximum output possible* and the *average output probable* must be carefully figured out and in such a way that a correct rate will not only be known but that will be proved correct.

Your output (maximum or average) may be affected but little, if any, by your investment nor be largely influenced by it. It will be governed entirely by your progressive or business-getting spirit and ability, and the kind of work you do. You may have enormous facilities and yet half your plant may be closed down for the lack of work, and remain so, so far as your investment alone is concerned. Understand, that because you have an enormous plant you still possess no more influence on your possible customer unless you *go after the work*. Your plant alone has no particular value in these days as a business-getter.

You must determine *in advance* the amount of work you *can* deliver and the amount you probably *will* deliver and base your estimate accordingly. If you fall below your estimated output, you lose money; if you exceed it, all the amount over and above the actual productive cost (provided, of course, you have made your calculations correctly) will be profit, or gain. Therefore, after you reach your estimated output, you can cut off *nearly* all of your general expense allowance from estimates on work for the balance of the period your estimate covers and yet make your regular profit over and above the actually productive expense.

Now, don't jump at conclusions here. This requires much thought.

The investment of money or its equivalent in a machine is no basis on which to estimate your general expenses; it is the *probable output* of that machine. Remember always, that it is not what a plant *can* do, but what it *does* do, that determines final loss or profit. In other words, it is the *productive* cost. While the machine or plant is idle there is no productive cost. In operating machinery or performing any productive work, therefore, the amount of such labor determines the general expense that shall be charged against the job on which those machines are working. If a machine or plant is not operated, neither is there *unproductive* expense. It is not the fault with the machine or plant; it should not, therefore, be charged with expense it is not creating.

Critics will say, "Suppose one shuts down entirely; according to this method there will be *no* unproductive or general expense." In taking such an attitude it must be borne in mind that perhaps fifty per cent of the total general expense item is made up of unproductive labor. A total shutdown means no labor whatever. A total shutdown again means a cutoff of all other operating expenses that are considered unproductive, such as telephone, rollers, oil, traveling expenses, advertising, postage, benzin and the many other items, which leaves practically but four considerations to be cared for in such a situation, viz., depreciation, interest, taxes and rent.

Now, when you do get a job to figure on, remember its total cost will be governed largely by the rate you pay your productive labor and the ability and despatch that labor possesses. To an extent your equipment is also a factor to consider here, but only with regard to its speed and convenience. The mere fact of a machine costing a lot of money is of no real moment. The list of general expenses contains interest on investment, depreciation, etc., that go to make up unproductive individual job cost.

As I have before suggested, do not understand me to say that it would cost no more to *make a run* on a cylinder (35 by 47) than it would on the jobber. Briefly, I *do* mean that it is not the cost or size of the machines that makes the difference; it is because there is more productive labor required in the one case than in the other. That, in turn, increases the general expense — as it rightfully should.

We have, for instance, a one thousand order of letterheads to run. On a 10 by 15 jobber the presswork cost would be about as follows:

Wash-up, 5 minutes, at 15 cents per hour	$0.02
Make-ready (pressman), ½ hour, at 30 cents	.15
Feeding, 1 hour	.15
One hundred per cent general expense	.32
	$0.64

The same job, under same circumstances, on a 35 by 47 cylinder:

Wash-up (feeder), ¼ hour	$0.04
Make-ready (pressman and feeder), 2 hours, at 45 cents.	.90
Feeding, 1 hour	.15
One hundred per cent general expenses	1.09
	$2.18

I think the reason is very evident for the difference in cost. It may be an exaggerated illustration, but it answers all purposes and is not an impossible case.

Now, my readers, do not suppose that I expect to settle this matter "all by myself." I have no such lofty ideas. I am merely doing my share in advancing opinion along this line and I am going to answer questions so far as possible, advocating my methods until some better ones are introduced. I want ideas and opinions and arguments from every one of you, for it is the standard of the printing business we are trying to elevate and it will require the united and earnest efforts of all to accomplish it.

THE BEST OF ITS KIND.

I consider THE INLAND PRINTER the best publication of its kind I have ever looked over in my thirty years' experience at the trade.— *Millard F. Rushing, Anna, Illinois.*

PRESSROOM

BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.— See Process Engraving.

PRESSWORK.— By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, $1.50.

THE HARMONIZER.— By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, $3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.— By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.— Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

PRACTICAL GUIDE TO EMBOSSING.— By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.— By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

INDELIBLE INK FOR LINEN.— H. M. D., Houghton, Michigan, writes: "Can you tell me where I can get indelible ink for printing on handkerchiefs and other linen goods?" *Answer.*— Indelible ink suitable for printing on linen goods can be obtained in any color desired from most any reputable inkmaker.

CHEMICAL ACTION OF RED INK AND ELECTROPLATES.— The action, chemical or otherwise, which results from printing on electrotypes with red ink can be obviated by mixing and applying to the plates a solution of cyanid of potassium and nitrate of silver. The solution should be applied with a rag on the electrotypes until the face is coated bright.

TROUBLED WITH SLUR.— F. L. H., Fostoria, Ohio, writes: "I am sending you a sheet of a catalogue I am now running, which shows a streak near the leaving end of the cuts. The press is set all right as far as I know, the bearers are a trifle higher than type-high, the cylinder runs firmly on the bearers and the packing is a trifle higher than the bearers on the cylinder. I have tried the best ink that can be bought, but with the same result." *Answer.*— Examine the blocks upon which the cuts are mounted to ascertain if they lie perfectly flat on the bed of the press. If the cuts rock, such a slur is often noticed at the leaving end of the impression. Excessive overlaying on the solids will also cause a slur such as you complain of, and this is quite frequently done by the operator through his anxiety to bear off the high lights on vignetted cuts. Lower the bed bearers to just type-high and then pull the cylinder down so as to remain firmly on the bearers. Use hard packing and carry as light an impression as is possible.

PRINTING ON GOLD OR ALUMINUM.— To produce an acceptable job of printing over gold or aluminum ink, it is essential first that the gold or aluminum adhere closely to the paper. This can be accomplished by running these inks sparingly and the free use of gloss dryer or other vehicles sufficiently strong to carry the metallic powders. It is also important that the first color be thoroughly dry before applying the second color.

IMITATION HOT STAMPING.—A. H. A., Estero, Lee county, Florida, writes: "Will you kindly tell me how the enclosed sample is printed? The paper is too rough for half-tone work and has been subjected to pressure of some kind. Can this be done on a cylinder press with an ordinary tint-block, and is some kind of colorless sizing used to fill in the pores in the paper?" *Answer.*— The specimen submitted is produced by means of a hot stamp, and is done on a machine especially built for such work. Very satisfactory imitation of hot stamping may be obtained on a cylinder press, provided the paper is not too hard. The tint-block should be mounted on solid metal. A second impression is sometimes necessary in order that the paper may be ironed out properly. The form should be run without rollers, no tint or sizing being used.



WAITING.

MAKE-READY FOR HIGH-SPEED PRESSES.— J. H. F., Covington, Kentucky, writes: "I am running a Harris press and my work is mostly on the order of the enclosed samples. I would like to know the proper way to start the make-ready for a form of this kind, and also what kind of an overlay is best for the half-tones, from which millions of impressions are run. You will notice from enclosed specimens that one sheet is covered with light spots. All of my forms print in that manner after running awhile. I have new rollers and the ink costs $1 per pound." *Answer.*— In starting a make-ready of this kind, it is best to first underlay the plates and bring them up level so that they may receive the proper inking. This is an important feature in the make-ready on all presses and especially on the rotary press, where the ink is applied to the form by a single roll. In addition to the underlay, the make-ready should consist of two mark-up sheets and a cut overlay for the half-tones. When making the first mark-up sheet, little attention need be given to detail in the half-tones, as this can be fully

covered with a cut overlay and in the second mark-up. Before placing the first overlay on the cylinder, the cut overlays should be prepared and applied to this sheet, as much time is saved by this method of applying the overlays. In the second overlay, the detail should be followed closely and where long runs are desired, the high lights in the halftones should be run with a very light impression or slightly broken, rather than too much impression at the beginning of the run. The light spots which you complain of are due principally to the grade of ink employed, it being too strong and highly finished for high speed printing.

Does Underlaying of Cuts Affect the Printing Surface.—"Inquirer" asks if underlaying of cuts affects the printing surface beyond the effect produced by mere leveling up. He writes: "There are some pressmen who practice underlaying on the back of the block and also between the plate and the block, claiming that the great pressure to which the plate and block are subjected in printing brings the block or plate or both to respond to the graduated tissues of paper placed under them and showing the desired effect in printing. That there are great mysteries in presswork I am bound to believe, and I therefore would be glad of a little light on the principles involved in this problem." *Answer.*— The object of underlaying is simply to level the printing surface of the different parts of the form so they will receive proper inking and give a flat, uniform impression. Any additional work as to detail, etc., must be done by overlaying on the cylinder. The nature of the cuts and the blocks upon which they are mounted should be carefully considered when applying underlays. Square cuts mounted on metal or wood base if found too low can usually be raised by placing a flat sheet of paper beneath the block, bringing up the entire plate. It is unreasonable to expect a small piece of paper to locally affect the face of the plate just the size of the patch. It will not do this through all the thicknesses of wood or metal. In the case of vignetted or unmounted cuts, much can be done toward make-ready by careful underlayings. These should be placed between the plate and block, and a pyramid of folio is sufficiently strong when underlays are applied in this manner. It is erroneous to attempt to use an underlay prepared of tissue-paper.

Three-color Printing.—T. J. N. Co., Lake City, Minnesota, writes: "Enclosed find two copies of three-color cover which we attempted to print, and as it was our second attempt at three-color printing we did not do a first-class job. The job was printed on a four-roller press, table distribution, at a speed of 1,100 per hour. The plates were electrotyped and then nickeled. We sent samples of paper to the inkmakers and asked them to send an ink that would work without our having to slip-sheet it, but found it was necessary to slip-sheet it if a clean job was desired. Does the ink have the appearance of being too heavy? We thought it did, but when we reduced the ink it seemed to spoil the color. If you will notice on the back of sample No. 1, it has a mottled appearance. What caused it? We also enclose a copy of a card which was our first attempt at three-color work. It was printed with the same ink. We think it fair, but can not account for the difference between the two jobs." *Answer.*— While the plates used in printing the samples sent are hardly up to the standard, there is much room for improvement in the make-ready and in working the inks. The cluster of vegetables on the front page, which varies in colors from extreme high lights of a silvery tone to the deepest shades of reds, purples, etc., prints flat and there is much loss of fine detail in the make-ready. The tint background is entirely too strong in color, both the red and yellow being run too heavy. It is next to imposible to run three-color work on paper coated on both sides without slip-sheeting. Apparently the red and yellow could have been reduced slightly to good advantage. The mottled appearance on the back page is caused by the red having dried too hard before printing the blue. When it is found that the red has crystallized before running the blue, do not add reducing varnish, but run an ink as heavy in body as is possible without filling up. The card is very neatly printed and the coloring effective, though the subject, being free from solids and the different depths of tone, is not nearly as difficult a job to print as the cover. Then, too, the stock is soft and more absorbent, which accounts for the different results obtained from the same inks.

TAXATION OF COMMERCIAL ALCOHOL.

In the present session of Congress an effort is again being made to pass a bill removing the tax from alcohol prepared for commercial or industrial use. Considering the importance of the benefits which the producing interests of the country would derive from such a measure, it is to be hoped that this time Congress will not fail to take the action proposed. The pending bill, of course, does not in any way affect the tax on alcohol intended for drinking purposes, which will continue to pay as large a share of the Federal revenue as it does now. The sole purpose of the bill is to remove the tax from alcohol that has been "denatured"— so treated as to render it unfit for use as a beverage.

The benefits which tax-free alcohol would bring to the commercial and manufacturing interests of the country can hardly be overestimated. Commercial alcohol enters largely into the industrial arts and manufactures and in many branches of production it is indispensable. In one way or another it is used in the making of a wide variety of commodities bought and sold in the regular routine of commerce and of daily use among consumers. At the present time the manufacturers who use this necessary element of production pay for it at an exorbitant rate, bearing the burden of a tax equivalent to about $2.07 a gallon. The result is to give the manufacturers of Germany and other competing countries having untaxed alcohol an enormous advantage, alcohol costing them only about one-fifteenth what is paid for it here.

There can be no doubt but that the removal of the tax would stimulate enormously many American industries and bring vast benefits to consumers generally. Recent experiments undertaken to test the possibilities of alcohol for use in lighting and heating and for supplying power indicate that as an illuminant and power-producer alone it would become a factor of prime importance in our industrial system, if the price were low. The people should no longer be deprived of these real and substantial benefits. The only objections that have been offered to the removal of the tax are that it would reduce the national revenues and might exempt from taxation alcohol prepared for drinking purposes. It should be evident that to derive revenue by placing a heavy tax on what is really a raw material of production is false economy. The other objection rests on a groundless apprehension. As the experience of foreign countries shows, "denatured" alcohol can not be made drinkable again save at a cost so great as to preclude its sale at a profit.— *Chicago Daily News.*

OMNISCIENCE IN DEMAND.

The *Hanover Artisans' Gazette* advertises for an editor "who is competent to remove all difficulties and misunderstandings between every branch of industry and every description of craft, and to reëstablish all unfavorable trade conditions on a sound and satisfactory basis."—*Printers' Register.*



BY F. HORACE TEALL.

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PUNCTUATION.— By Jobn Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, $1.

PENS AND TYPES.— By Benjamin Drew. A book of hints and helps for tbose who write, print, teach or learn. Cloth, $1.25.

BIGELOW'S HANDBOOK OF PUNCTUATION gives full information regarding punctuation and otber typographical matters. Cloth, 50 cents.

ENGLISH COMPOUND WORDS AND PHRASES.— By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, $2.50.

PUNCTUATION.— By F. Horace Teall. Rules bave been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, $1.

COMPOUNDING OF ENGLISH WORDS.— By F. Horace Teall. Wben and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, $1.25.

TYPOGRAPHIC STYLEBOOK.— By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

THE ORTHOEPIST.— By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, $1.34, postpaid.

THE VERBALIST.— By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4¾ by 6½, $1.32, postpaid.

VEST-POCKET MANUAL OF PRINTING.—A full and concise explanation of all the technical points in tbe printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

PEERLESS WEBSTER DICTIONARY.—A new vest-pocket dictionary based on tbe International. Over fifty-one thousand words; rules for spelling, punctuation, capitalization; tables of weights and measures, parliamentary law, postal information, bankruptcy law, etc. Printed from new plates. Full leatber, gilt, 50 cents.

PROOFREADING AND PUNCTUATION.— By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typefounding, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, $1.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Clotb, 12mo, 476 pages, $2.14.

GRAMMAR WITHOUT A MASTER.— By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who bave never studied grammar at all, will find it especially suited to their needs. Cloth, 4¾ by 6½, $1.07, postpaid.

THE ART OF WRITING ENGLISH.— By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will imel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, $1.50.

ABBREVIATIONS.— M. F., Bloomington, Illinois, writes: "What is the proper form for the abbreviations of 'Pour prendre congé' and 'Répondez s'il vous plaît?" Both Webster and the Standard Dictionary use all capital letters, thus P. P. C. and R. S. V. P., but such writers on etiquette as Mrs. Burton Kingsland, Emily Holt, and the New York Society for Self-culture give them with a capital for the first word only, as P. p. c. and R. s. v. p., and claim the use of capitals for all is incorrect." *Answer.*— The dictionaries named are not the only authorities in favor of using all capitals for these abbreviations, as the Century also does it, and so do other dictionaries. As the dictionaries are made by men who know a little about such matters (although they are not infallible, as some people seem to think they are), it is only fair to suppose that they had a reason for their unanimity; they had, and that reason must be that what they give is the form commonly used. Mr. F. Howard Collins, in "Author and Printer," makes a very queer distinction; he gives p. p. c. and R. S. V. P. Certainly there can be no good reason for the difference. What is good for one is good for the other. The preference of the editor of this department is for all capitals in these and similar abbreviations, and if he had his way none would be otherwise. Many people think differently, though, and those who use a. m. and p. m., B. C. and A. D., etc., are just as strongly convinced as he, and have equal right to their choice. One thing that no one should do is to make such assertions as that the use of capitals is incorrect, for it plainly is not so.

YEARS SPELLED OUT.— J. M. C., Richmond, Indiana, writes: "In the February number of THE INLAND PRINTER, information is requested as to the reason for omitting 'and' in 'nineteen hundred and six.' The only reason I know is that most teachers hold that 'and' is a sign of a decimal, and should only be used before a decimal — or possibly a common fraction. In several arithmetics that I have lately examined this rule is followed, as 'one thousand nine hundred six and 45-100.' I have noticed that some very particular people follow this custom in writing checks, as 'three hundred sixty-one and 32-100 dollars,' instead of 'three hundred and sixty-one and 32-100 dollars.' I may say that I would accept a check written either way, if the signature was all right. The custom I have referred to above I believe obtains generally among mathematical writers; but I am not prepared to say whether grammarians would agree with the mathematicians; I doubt if they would — for they frequently disagree with one another. In my printing-office experience I have rarely had occasion to spell out the year, except in wedding and party invitations, and in such cases I instruct the compositor to either omit or use 'and,' according to the length of line he needs to make the job look right. That's as good a rule as I know. I will add that the newspaper copies of the Roosevelt-Longworth wedding invitation give the year as 'nineteen hundred and six;' and if the copies are correct, there is good White House authority for the use of 'and.'" *Answer.*— I had never heard before, so far as I now recall, that any one thought "and" was a sign of a decimal or fraction, and see no reason for so thinking. This correspondent seems to say practically the same as what I said in the paragraph referred to, and to leave the matter still open to varying decision, just as it should be. There is no absolute rule in such cases, and every one has a perfect right to do as "him pleases," as they used to say once upon a time. There is plenty of authority both ways.

COMMAS. — We have a proof of a market article from somewhere, probably Australia, with the question, "What is your opinion of the commas inserted in the sentence, 'The market opened easier, and, as the sale proceeded, prices showed a considerable drop?' Isn't the reading as good without as with them?" *Answer.*— The reading is a great deal better without any but the first comma. The meaning is simply that prices dropped as the sale went on, and the sentence as worded in the quotation says what it means just as simply without the commas, and with the commas it is punctuated as it should be if the part marked off by them were an interpolation. What is actually there is not an interpolation or parenthesis, but part of a straight-ahead assertion. The commas should not be there. This error in punctuation is very common in print, and its

opposite is also frequent. A book for children, the title of which I do not recall, but which I saw not long ago, said a great deal about the Imp of Perversity, and made that Imp responsible for much mischief. The Imp seems to be very active in matters of language, especially punctuation. Punctuation should be one of the easiest of intellectual exercises, but somehow people seem to think it must not be allowed to become so. It should consist entirely in natural division of the words into phrasal groups each including all that will properly go within it, and each separated by a point from all that does not belong to it. It should be as strictly a part of the act of writing as the making of the letters, for very often no person other than the writer can tell from the mere association of words just what is meant and consequently how to punctuate. No man can prescribe for everybody else an inviolable and inflexible system for commas, either of inclusion or exclusion, for often it makes no difference whether they are used or omitted; but sometimes the sense is greatly changed by inserting a comma or by leaving one out, and for such cases inviolable rules are certainly needed. A notice of a book on punctuation said: "Such a treatise is not quite as necessary now as it might once have been, owing to the prevailing fashion of writing in a style which insures clearness independent of punctuation." No such style of writing could prevail; it is simply an impossibility. It may be frankly acknowledged that the book was written by me; and I am going to advertise it here by quoting what Mr. Richard Henry Stoddard said about it in the New York *Mail and Express:* "Blessed be the name of F. Horace Teall! In a little book, 'Punctuation,' he has set all the grammarians and rhetoricians to shame. It is simple, sensible, and terse. It converts commas, colons, and semicolons into respectable members of the community from their former character of crazy nightmares."

SOMETHING DIFFERENT.

In these days, when so much is written on the wide differences in printers' prices, it may be alike refreshing to yourself and to your readers to hear of an instance of remarkable uniformity. A well-known firm in the city of London invited an estimate from three printers for a catalogue, and on receiving them, the prices of each were found to be identical. Not wishing to show special favor to either, the manager decided he would give it to the smartest, and inquired the length of time required to do the work. Here again the answers were the same. It might be thought there was some agreement between the printers, but being one of them I am able to affirm there was not; and I have no knowledge who the others were — indeed, the manager of the firm referred to informed me that each of the three printers carried on business in a different county.

One is accustomed to expressions of surprise by customers at our differences, but in this instance the surprise seemed greater at our uniformity; and this was intensified by the fact that the same firm on a previous occasion had sought an estimate from myself and another, and there, too, our calculations were alike. This is surely as it should be, and would be more frequently if greater consideration were given to the items which go to make up the printer's cost.— *J. T. Cooper, in Printers' Register (England).*

THE ENGLISH LANGUAGE.

"Ah, your language! Eet ees so difficult!"
"What's the matter, Count?"
"First, zis novel eet say ze man was unhorsed."
"Yes?"
"Zen it say he was cowed."—*Pittsburg Post.*

QUESTION BOX

This department is designed to furnish information, when available, to inquirers on subjects not properly coming within the scope of the various technical departments of this magazine. The publication of these queries will undoubtedly lead to a closer understanding of conditions in the trade.

MAILING TUBES.— S. P. & P. Co., Marshall, Michigan: "Kindly give us the name of a manufacturer of mailing tubes." *Answer.*—The Chicago Mailing Tube Company, 223 South Robey street, Chicago.

PANTOGRAPH MACHINE.—W. H. Dickens, Providence, Rhode Island.— "I am looking for a pantograph for outline work. Where can I obtain such a machine or a catalogue?" *Answer.*— Robert Mayer & Co., 19 East Twenty-first street, New York city, can supply you.

EMBOSSING INKS.—W. E. T., Washington, D. C.: "Can the so-called advertised embossing inks be used to advantage when printing and embossing on a platen press?" *Answer.* — Charles Eneu Johnson & Company, 125 Plymouth place, Chicago, manufacture an ink called Embossing Red, which dries with a high gloss and can be used to advantage on a platen press.

MATCH SCRATCHERS, ETC.— J. G. R., Groton, South Dakota: "Can you advise me where I can procure match scratchers similar to the enclosed sample?" *Answer.*— The Bennett-Thomas Manufacturing Company, 334 Dearborn street; Donker-Williams Company, 1322 Wabash avenue; F. L. Shafer Company, 161 Market street, all of Chicago, manufacture advertising novelties.

TRADING STAMPS.— L. A. B., Cincinnati, Ohio: "Kindly give me the names of two or three firms who can make me a small gummed rebate or trading stamp. I want a responsible house who can do good work at reasonable prices." *Answer.*—Any of the following Chicago firms can supply you: The Tablet & Ticket Company, 87 Franklin street; The Randolph Box & Label Company, 35 South Clark street, or Dennison Manufacturing Company, 128 Franklin street.

GUMMING SUBSTANCE FOR ENVELOPES.— H. E. J., Homestead, Pennsylvania: "Will you kindly advise me where I can procure gumming substance for gumming envelopes and other papers. Have tried several materials, but failed to work properly." *Answer.*— The Arabol Manufacturing Company, 100 William street, New York city, can furnish you with a glue such as you desire. They can also give you full information concerning its use — whether it should be diluted or used just as it is.

GLUE FOR SHIRT BANDS.— C. P. & B. Co., Wooster, Ohio: "Can you tell us how to make a glue that will work nicely on a shirt band? We have had the greatest difficulty in getting a glue that will answer the purpose. The glues we have used did not work at all. In cutting them, when the clamp of cutter would reach them and tighten up on them a little, they would all stick together, and it would be almost impossible to separate them. The sheets after being glued would curl." *Answer.*— Use Le Page's glue. Dilute with cold water until the consistency of thick cream. After gumming, run them out (apart) so as to keep them from sticking together while drying. Do not gather them up until thoroughly dry and no difficulty will be experienced when cutting.

DERMON GASOLINE LAUNCHES



Dermon Manufacturing Co.
280 Montrose Street, Philadelphia

New Caslon Series in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

¶ An Association of young men for mutual helpfulness, providing for the young men of the city an attractive place of social resort, free from questionable influences, and equipped with helpful agencies for their intellectual, social, physical and spiritual welfare.

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M.....

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Painters and Decorators

Complete Line of the Latest Designs in Wall Paper Always on Hand

3872 West Strathmore Avenue
Opposite Court House

New Caslon and Kenilworth Italic
Made by
INLAND TYPE FOUNDRY
Saint Louis

The New Premium Four-Cylinder Motor

Philip Johnstone Automobile Company

THE BEST that the world's most advanced practice has heretofore produced has been subjected to the processes of elimination and concentration to gain simplicity. By the absence of complication, by skillful design and a wise selection of material, we have reduced weight without sacrificing strength, and with abundant power have been able to produce a car, built especially for American road conditions, which combines such qualities of nimbleness and lively action as have never before been offered by any manufacturer in this country, and rarely equaled abroad.

It is not the mere speed itself which is phenomenal, but the fact that we have, with an engine of these dimensions, produced a car by seconds the best that the world's foremost manufacturers could do even with cars far exceeding ours in horsepower; and what we have demonstrated with our racing car will be found equally true with our regular product. Premium cars represent the highest efficiency known to the art.

The word "lubrication" to the average motorist more often than not stands for "trouble." He is confronted with many pumps, valves and adjustments which keep him constantly in fear and trembling. Experiments and tests of an exhaustive and severe nature have proven to us that our

New Caslon, Kenilworth, Hearst Italic and Buford Initial in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

The

New Premium Four-Cylinder Motor

Embracing All the Latest Features in Design and Every Necessity for Easy Manipulation

Philip Johnstone Automobile Company ::: Chicago

Annual Banquet *of the* Hartsburg Board of Trade



New Burnton Hotel, Hartsburg, Montana, December Seventeen

Menu

Blue Points

Olives Salted Almonds Celery

Cream of Tomato

Broiled Lake Trout, Maitre d'Hotel
Potato Shoestrings

Lobster a la Newburg en Cases

Tenderloin of Beef Pique aux Champignons
French Peas

Roman Punch

Roast Young Turkey with Dressing Cranberry Sauce
Mashed Potatoes

Waldorf Salad

Tutti Frutti Ice Cream Fancy Cakes
Fruit
Cheese Crackers
Demi Tasse

Cigars Cigarettes

Annual Banquet *of the* Hartsburg Board of Trade *at the* New Burnton Hotel, December Seventeen, *at Eight-thirty O'Clock*

Tickets One Dollar

Kenilworth and Kenilworth Italic in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

Job Composition

Under this head will appear each month suggestive analysis and criticism of reproduced and reset specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

VEST-POCKET MANUAL OF PRINTING. 50 cents.

SPECIMENS OF BUSINESS CARDS AND TICKETS — sixteen-page booklet — 25 cents.

SPECIMENS OF ENVELOPE CORNER CARDS — twenty-four-page booklet — 25 cents.

MODERN LETTERPRESS DESIGNS.— A collection of designs for job composition from the *British Printer*. 60 cents.

SPECIMENS OF LETTER-HEADS.— Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

MENUS AND PROGRAMS.— A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

AMERICAN MANUAL OF TYPOGRAPHY.— New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. $4.

IMPRESSIONS OF MODERN TYPE DESIGNS.— Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

BERAN: SOME OF HIS WORK.— Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. $3.

SPECIMENS OF BILL-HEADS.— Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

LECTURES FOR APPRENTICES.— Reprinted from THE INLAND PRINTER. Comprises General Work, Commercial Work and Stonework. 56 pages, fully illustrated, 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1, postpaid.

ART BITS.— A collection of proofs selected from odd issues — half-tones, three-color prints, engravers' etchings, etc.— neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, $1, postpaid.

TITLE PAGES.— By Theodore Low De Vinne. Third volume of the series on "The Practice of Typography." Treats the subject from three standpoints — Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, $2.

TWENTIETH CENTURY COVER-DESIGNS.— Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. $5, prepaid.

PLAIN PRINTING TYPES.— By Theodore Low De Vinne. First volume of the series on "The Practice of Typography." A treatise on the processes of typemaking, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, $2.

THE PRINCIPLES OF DESIGN.— By Ernest Allen Batchelder, Instructor Throop Polytechnic Institute, Pasadena, California. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, $3.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.

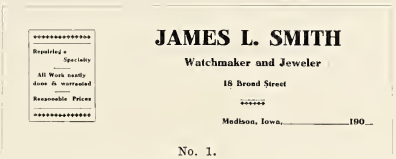
MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HINTS ON IMPOSITION.— By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins, and this feature alone is well worth the price of the book. Full leather, 4 by 6 inches, flexible. $1.

PORTFOLIO OF SPECIMENS OF PRINTING.— The second of the series, composed of a wide range of commercial work in pure typography, designed to show the maximum of effectiveness at the minimum of time and expense. Printed on loose leaves and comprises examples of plain and color printing; also a demonstration of the relationship between the size of the half-tone screen and various grades of paper. This portfolio is especially recommended to students and ambitious printers. Price, $1, postpaid.

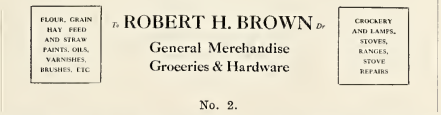
THE increasing demand for the higher quality of printed matter and the education of the buyers of printing along the lines of what constitutes this high quality are evidences that the printer who wishes to rise above the average and produce this better quality of work must incorporate with his knowledge of typography an understanding of the principles of design and the harmony of colors. That this demand for and knowledge of the more artistic in printed matter is increasing is illustrated by the fact that in the public schools the pupils are taught the principles of balance and proportion in relation to cover and title pages, in connection with their classes in drawing and design.

The tendency in many printing-offices is toward the employment of artists and designers to lay out and arrange



No. 1.

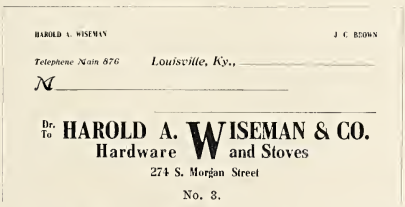
the display jobs, thus making the work of the average compositor in these places practically nothing more than the setting of "reprint copy." This in itself constitutes one of the strongest arguments in favor of art education for the



No. 2.

printer, for in this performance of mechanical labor there is small opportunity for salary increases or for the exercise of individuality. These positions — which are created merely because the average compositor can not be depended upon to produce high-class work with any degree of certainty — should be within the province of the job-printer, and the only thing that prevents this is the fact that the average job printer is not well enough versed in the principles of art to be able to lay out the complete work with any degree of assurance as to what will be the appearance of the finished product.

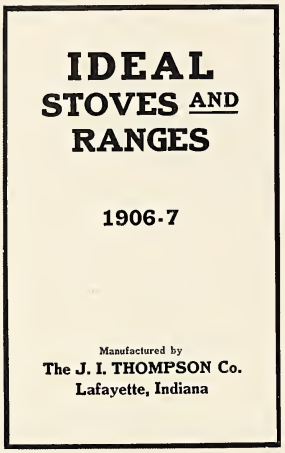
A large percentage of the printers who produce the really good specimens do so through an inherent idea of



No. 3.

what "looks well," rather than through a well-defined idea of the fundamental principles of design and the harmonious use of colors. This idea of what "looks well" is some-

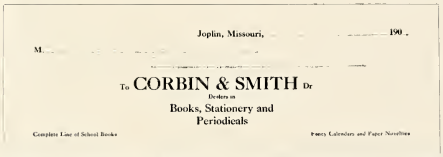
thing which he can rarely impart to others, even though he has the inclination. It is something that is acquired only after much experience and experimenting, and even then it is not reliable — as is shown by the changes often made in the work after the first proof has been taken. The same is true of the production of specimens printed in two or more colors. In many places the different color forms of a page are put on the press and proved in possibly ten or twelve different combinations of colors and then the choice is made.



No. 4.

The value of education in the principles of design and the harmony of colors is at once apparent in such cases as these. The printer who produces a piece of work based on an understanding of these principles will not be under the necessity of taking a proof in order to know whether a line or panel should be moved up or down, or to one side, nor will he be compelled to prove the work up in a dozen colors in order to find out which of the colors will harmonize with each other, as well as with the stock to be used.

Interesting results in regard to the value of technical education are found in the reproductions herewith, which are specimens of composition by students in the Inland Printer Technical School. On entering the school the student is given a piece of manuscript copy for some form of commercial work, but with no instructions as to display or arrangement. When the proof is taken, the faults in the work are pointed out and corrections made. Specimens Nos. 1-2, 3-4, show the first proofs of four consecutive



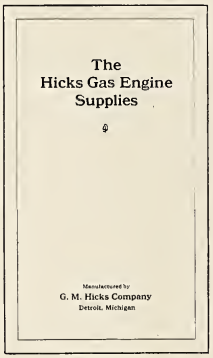
students, while the balance of the reproductions are taken from the work of the same students during the course of instruction. Some of the specimens, being arranged for two colors, show what seems to be a faulty distribution of color in reproduction. While slight changes would suggest themselves in some of the specimens, the work as a whole shows an adherence to the underlying principles of balance and proportion. Some of the reproductions show the combination of hand-lettering and type-faces in an interesting manner and suggest the possibilities of this combination in cases where something more artistic than the conventional type is desired. Where colors are used, consideration has been given to the bringing together of those colors which would harmonize, and to their proper distribution and proportion.

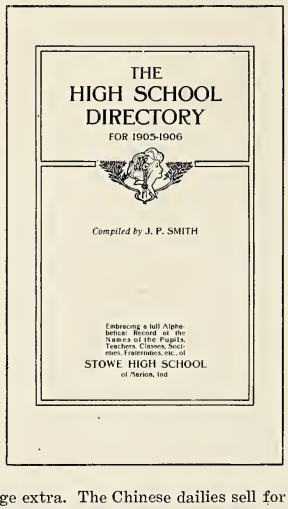
JOURNALISM IN CHINA.

Consul Anderson writes interestingly of journalism among the Chinese, the *Daily Consular and Trade Reports* tell us. He points out difficulties due to numerous dialects and predicts a growth in China similar to that of the United States in the past fifty or seventy-five years. Mr. Anderson's report follows:

"The status of the newspaper business in China at the present time is interesting, both from a business and a sociological standpoint. As might be expected from the radical difference between the Chinese and foreign languages there are two lines of the newspaper and publishing business, one foreign, generally English, and the other Chinese. It is rather surprising, in view of the comparatively small population of foreigners in China, how many large publications there are in foreign languages. The prices they obtain for their publications and their work probably explains the situation. Shanghai has five daily newspapers, three morning and two evening papers; one is French. It has six foreign weeklies, one German. It also has four Chinese dailies and a large number of Chinese weeklies.



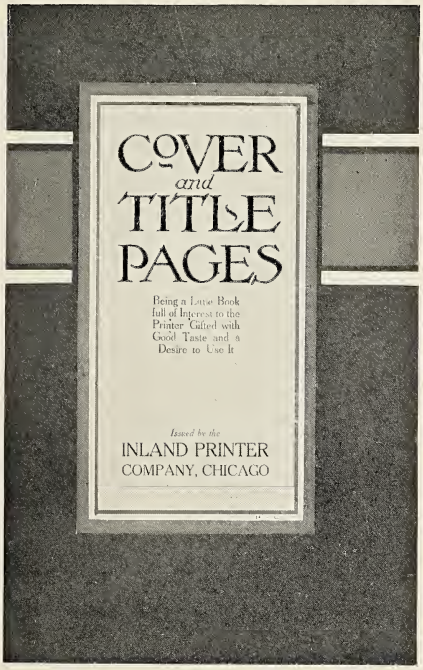




"Practically all of the foreign papers sell for 4½ cents gold per copy. The subscription price is about $15 gold per annum, postage extra. The Chinese dailies sell for about ½ cent gold per copy. In addition to these publications, there are a large number of religious papers, mostly in Chinese, published by the mission authorities for the several missions, to be used in connection with their work in several portions of the empire. Some of these mission publications have large circulations, and are forming an

important factor in the regeneration of the educational and social system of the nation.

"In the south, Hongkong dominates the publication business, and as it is a British colony English publications might reasonably be expected to lead, but on the face of the record the Chinese predominate. There are four English dailies, the *Post*, the *Press*, both morning papers, and the *Telegraph* and the *Mail*, both evening papers. There are six Chinese dailies, and, as in the case of Shanghai, there are a large number of publications designed to fill various



wants in south China, a Portuguese weekly and the *Government Gazette* being among them. In nearly every port of importance in China there is an English publication of some sort. Tientsin has good newspapers, considering their support; Fuchau has a publication known as the *Echo;* Amoy, one known as the *Shipping Gazette,* and other ports have similar papers.

"The publishing houses as a rule, both newspaper concerns and concerns for general printing only, are fairly well equipped for their work. Some of them attempt work in the line of high-grade magazine and book publishing, and while it is not always an unmixed success from a technical typographical standpoint, it demonstrates that the Chinese workmen, who do most of the work under foreign supervision, will in time acquire considerable merit in this line of effort. Practically all of the establishments are equipped for more or less printing in the Chinese language, and some of the newspapers give a portion of their space to a short review of the day's news in Chinese. This work, of course, requires a special corps, but it also brings in special returns, and probably is an advantage rather than a drag to the business. Some of the concerns have the latest modern machinery, and it is one of the strangest experiences in a strange land for a tourist to see a Chinaman operating a Mergenthaler Linotype in a Shanghai publishing house. The newspapers, as a rule, lean to British machinery wherever possible, and as a result they are somewhat behind in many modern appliances. The circulation of the newspapers in Chinese ports does not justify large and high-speed printing machinery.

"It is rather interesting to note that China at present seems to be passing through much the same process with its newspapers and other publications that many parts of the United States have passed through. All over the empire native newspapers are being started in the colloquial dialects and are more or less local in character. The result is that many irresponsible publications are issued and the means used by their projectors to keep them alive have a striking similarity to those employed by irresponsible parties at various times and in many places in the United States.

"Newspapers are established, run a short course, and then drop out of sight. Blackmail and other evils afflict many communities. Much of the anti-foreign agitation which has caused so much trouble in China in the past few years is to be traced to such publications. In time some of these papers, like some of their prototypes in other lands,

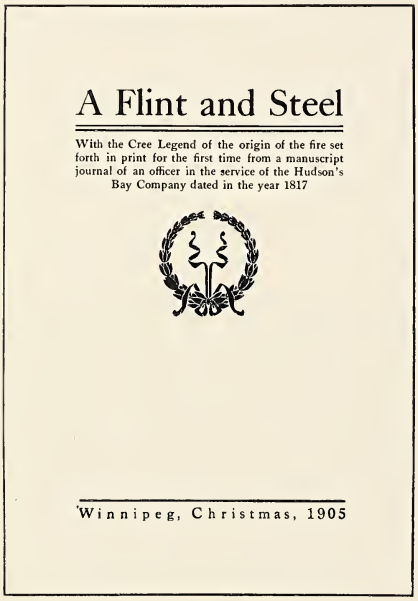


develop into paying properties and responsible publications. It is unfortunate in some respects that the publication of newspapers in the several local dialects has developed so generally. While such publications will afford means of educating the people of the empire in some lines they also furnish the means for deepening the gulfs dividing the several provinces which differ in dialects. Each newspaper center, if it performs its natural mission, will develop its own language in its own field to the exclusion of a language which might in time become common for all China.

"It is easy enough to criticize newspapers anywhere and in any land, but it is not always easy to better such newspapers when their support, their origin and their par-

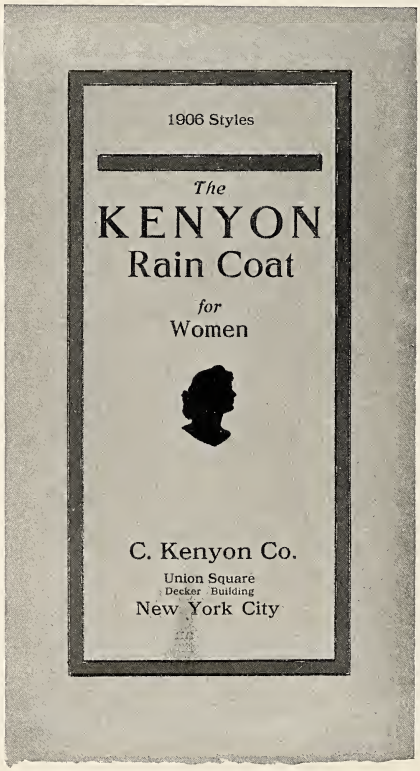
ticular field are considered. There is a general impression that most of the foreign publications in China are making money to a very satisfactory degree. They secure an extraordinary, one might almost say extortionate, price for their papers and secure good rates for their advertising. Their foreign help is costly, but the native help is had at a rate which would sicken the heart of every union man in America. Paper stock is high.

"I have called the attention of American papermakers to this field heretofore. Publishers in China are hampered somewhat by comparatively poor mail facilities, but their circulation makes up in quality what it lacks in quantity. Their telegraph service is costly, but they have comparatively little of it. Generally speaking, they would rank very low as newspapers in the United States, but of course it is well to remember that they are published in Chinese ports and not in the United States. They are decidedly British in style and tone, and generally in prejudice. They are not popular with Americans, as a rule, because the average American is used to securing too much news for too little money, and he is surprised, not to say grieved, that the proposition is reversed in China. I think that foreign newspapers in China would be improved by the services of a few energetic American newspaper men, but I very much doubt if the interests of any American newspaper men, whose services would be worth while out here, would be advanced by coming to China. I believe that the publishing business in China is a paying business now and will be even more profitable in the near future. But there are peculiar conditions governing the business in the Far East, and to successfully meet them a publisher should have spent some time examining the field he attempts to work. The ordinary natural increase of members of the newspaper calling or profession in China will probably supply its requirements for some time to come."



NEW TYPEWRITER FOR THE BLIND.

Consul-General Guenther, of Frankfort, on the authority of the Frankfort Didaskalia, reports that Mr. Dussaud, a Frenchman, who has rapidly become known through a number of important practical inventions, has invented a new typewriter for the blind, of which it is expected that it will revolutionize the writing of blind persons and enable them to write and read in the same manner and under the same conditions as those who can see. They will, in future, also need only a single alphabet instead of two, as heretofore. The apparatus is supplied with a row of keys, and if one, two or more of these keys are pressed down with the fingers, the desired letters or the desired word appears. This new typewriter with keys is by far the most perfect instrument which has ever been offered to the blind for writing. It can be rapidly operated, and furnishes a regular writing that the blind can easily read. Another advantage of special importance is that the lines can not run into each other. Tests have been made at the Ecole Braille for the Blind, at Paris, which have given the greatest satisfaction.



We take The Inland Printer and think it the perfection of the printers' art, the highest exemplar of the trade, and editorially unsurpassed.—*Brown Printing Company, Ada, Indian Territory.*

MACHINE COMPOSITION

BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

THE LINOTYPE, 1897. By Frank Evans, 100 pages. $3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.— Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.— By E. J. Barclay. 64 pages. $1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.— By S. Sandison. 36 pages, vest-pocket size. Price, $1.

STUBBS' MANUAL.— By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, $1.

CORRECT KEYBOARD FINGERING.— By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FASCIMILE LINOTYPE KEYBOARD.— An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HISTORY OF COMPOSING MACHINES.— By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record — 1822 — down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines — Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, $4; cloth, $3; postpaid.

THE MECHANISM OF THE LINOTYPE.— By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Vise-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, $2, postpaid.

KEYROD GUIDE.— T. F. F., Northampton, Massachusetts, writes: "Will you kindly tell me the best way to put in a keyrod guide; should I remove all the rods, or put it over the tops of them?" *Answer.*—The only practical manner in which to put in a keyrod guide is to remove all the rods, place the guide in position and then insert all the keyrods.

DOUBLE-DECKER DIFFICULTIES. — An Ohio operator writes: "(1) Please inform me why the assembler elevator on the double-deck machine I am using does not always settle back in place when the line is sent in, which causes line to vibrate and which continues until I jerk the assembler lever — when it seats properly. (2) When shifting from one magazine to the other why do the keyrods, one or more, remain up, and what is best to do to restore them to their normal position? (3) Would you recommend that the lower-magazine belt upon which matrices travel to chute be medium or tight?" *Answer.*—(1) The tension spring which extends beneath the keyboard to assist in lifting the elevator may be too tense to allow it to descend freely. (2) The keyrods probably bind in the upper keyrod guide, owing to the magazine being drawn backward too far. (3) A moderate tension only is necessary, if the ball-bearings are properly lubricated.

MOUTHPIECE TROUBLE.— A New York operator writes: "Of late I have had considerable trouble in getting a perfectly clear slug from a Model No. 3 pica machine, the throat of the metal-pot being very dirty. I have tried several times to remove the mouthpiece of the pot, following the usual method, but without avail. The piece has not been removed before in perhaps six months or more, but even at that, I can see no apparent reason for its failing to move now. It is in perfect condition. I do not wish to ruin the mouthpiece, hence I can see no way out of the difficulty. What would you suggest?" *Answer.*— Have the mouthpiece hot. Place a heavy piece of steel against the right-hand end of the mouthpiece, being careful to avoid the lips of the crucible, and a few blows with a heavy hammer should loosen it. When replacing the mouthpiece, spread Dixon's Pipe Joint Compound thinly over the edges. This makes an excellent seal and permits its easy removal at future times.

TROUBLE WITH MAGAZINE.— C. C., Monmouth, Illinois, says: "A few nights ago I cleaned the magazine with gasoline and later used just a little graphite, also cleaned the matrices. They worked well for about five hours and then they failed to respond all over the keyboard. I took them all out again and wiped them off with a clean rag and also brushed out the magazine, using neither gasoline nor graphite. They wouldn't work, so I tried a different kind of graphite, but they only worked about five hours and then went wrong again. I have tried everything I know of, but can not make them respond. They stop at the upper pawl. There is no down adjustment, so it can not be that the pawl is not raised high enough." *Answer.*— I judge that you are working on a pica machine, which does not permit of up and down adjustment of the magazine. If the keyrods do not rise to their full stroke, it must be on account of the lessened diameter of the keyboard rolls. They may be worn or shrunk, and you can purchase new rubber covers from the Linotype Company.

HOW SOME MACHINISTS WORK.— On completing a course in the Machine Composition Branch of the Inland Printer Technical School, a recent graduate wrote: "I have been through several shops around here and took quite an interest watching the machinists. The first thing I saw one do was to adjust the upstroke of the first elevator — so the line would shift to the second elevator — by the barrel. Another put a piece of solder on one of the keyboard cams when the stop-pin wore, and when the projecting solder cut his roller, he wound tape around the cut. In one of the shops here there is a double-decker that gives a good deal of trouble with the distributor of the lower magazine. Every now and then two matrices come, or rather lift over at once. Generally two thick ones. Four machinists have given it up as a bad job. Even got a new lift. Another thing is about a hot slug. They never seem to think about recasting on the bottom to fill the slug, especially when the measure is over thirteen ems. They simply take a piece of brass and bang it out."

POT OUT OF ALIGNMENT.—A. W. P., Vincennes, Indiana, writes: "I am sending you herewith slug from machine which in more ways than one is imperfect. In the first place, the bottom of slug shows too much heat and the

face appears as if metal was cold. I have been having trouble for some days in getting a good body on slug and at the same time a clear face. I hardly know where to lay the cause; whether to the gas or to the metal. Will say, however, that nearly two-thirds of the metal now in use has not been used over four months. Metal is all remelted once a week and cast into ingots. As to the gas, I have a clear, blue blaze under pot and I am at a loss as to why I can not get a better slug." *Answer.*— Your trouble is mostly due to the pot being out of alignment with the mold. This shows on the bottom of the slug, the holes not being full and round. The pot should be raised, especially on the right-hand end, though it needs it on both ends. The metal does not freely enter the mold as the pot now stands and chills before it strikes the matrix.

Fins on Bottom of Slugs.— J. A., Mount Morris, Illinois, writes: "I wish that you would look at the enclosed slug, and tell me how I can get rid of the fin that you see on the bottom of the slug. I have tried to get rid of it by trying to set the back-knife close enough, and also by gone and consequently the hair-lines are very bad. I have tried rubbing a little soap on the bands at the casting point and using plenty of graphite, but it only partially relieves the trouble for a few hours. What would you advise doing? If you have any paste or preparation to fill up the 'cracks' in the old matrices by some trick, I would like to have you send it, or the prescription. The pump-stop when I came was set for a very loose line and it is no wonder the matrices are damaged. Can I, by any preparation of any kind, and by careful spacing, get rid of my trouble?" *Answer.*—There is no preparation which will restore the walls to matrices which have been damaged as yours are. There is a firm in New York, called The Matrice Renewing Company, 96 Fulton street, which restores damaged matrices, but matrices must be sent them for repair. The addition of a little powdered soapstone to the graphite is recommended by some machinists.

Linotype Adjustments.— J. S., Flushing, New York, writes: "(1) What causes air holes or cave-ins on face of slugs, as per enclosed sample? I clean out the vents


IRVING HARRIS.


V. L. BOWMAN.


MISS MILDRED WARNER.


A. L. KIMBALL.


JACOB GAUB.

GRADUATES MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

keeping the back of the mold and also the mouthpiece free from dirt. I wish that you would look at the enclosed sheets and see if the fin on the slug might cause the pressman to have trouble in getting the matter to show up even. Or might it be that the slug is a little bit higher at one end than the other? On some of the sheets one side of the column is a little worn or looks like boldface. If the slug is higher at one end than the other, I would like to know where the trouble lies and how to make it right. Might it be in the lining-up of the matrices?" *Answer.*— Fins on the bottom of slugs are usually caused by the edges of the mold-cell being rounded off by misuse — the result of cleaning the back of the mold with emery cloth, or the like. The mouthpiece should be perfectly flat and true also, as if it is rounded, metal will escape in a thin film and adhere to the bottom of the slug. The back-knife should only be set close enough to the mold to remove the metal which escapes from the vents and trim that which is left by the mouthpiece holes. The mold should be pressed forward against the matrix line to prevent escape of metal between the face of the mold and the matrices. Otherwise it will gather on the mold-face and make the slug that much higher. The eccentric in the gear cam controls this pressure.

Damaged Matrices.— "Operator," New York, writes: "On taking a machine situation here I find a set of matrices that have run two years, but which were badly bent and walls crushed in from faulty matrices, loose spacing and carelessness in cleaning bands. I want to get the hair-lines out the best I can, as they say they will not buy matrices. Now I have gone over the whole set and straightened them up the best possible, but the walls are three or four times a day and drill out the holes in mouthpiece about every three weeks. (2) What causes metal to stick on face of mold, on right-hand end, also at casting point of right-hand jaw? (3) What is the cause of letters pulling off the face of slug after casting; also the bottom of lower-case 'p' and 'y' being battered? This happens on one machine only. (4) How is it that the spacebands get twisted or pied while transferring? Sometimes it happens three or four times a day, then perhaps not for a week again. (5) When the operator sends in a tight line in his machine, if it happens to be a thin matrix on the end, it will jump out, strike the jaw and bend. The vise-automatic is set as close as it can be set. Sometimes the line will go down and the last matrix stick up, the mold advancing forward will cut away the ear. How can I remedy this?" *Answer.*— (1) Lack of proper ventage in the mouthpiece, usually. A loose-fitting plunger will not deliver enough metal to the mold to cast a solid slug. (2) Insufficient pressure of the mold-disk against the matrix line at the time of casting. (3) The former is caused by a hollow slug being cast, the latter by misadjustment of first elevator. The screw in the elevator head should be so set as to allow the elevator to rise one sixty-fourth of an inch when making alignment of the matrices before the cast. (4) Unequal wear on the under side of the spaceband ears and loose-fitting sleeves will allow spacebands to swing when hanging from the rails of the intermediate spaceband channel. (5) Set the plate on the stopping-pawl so that the machine can not start until the line is fully inside the first elevator pawls.

From a New Zealand Correspondent.— "Pacific" writes: "(1) I have been experiencing a somewhat hidden

trouble. After the cast — just as the segment on cam three engages bevel gear on short shaft that drives mold-wheel — the pot seems to break away from mold, or rather a peculiar sound is made as if that is the case. To me that does not appear to be the trouble, but that there might be something loose in the mold-wheel-turning apparatus, as when I hold the pinion firmly with my hand the breaking away is little noticed. Perhaps continually working on thirteen-em measure has caused dross or cold metal to clog at back of mouthpiece not cleared at every cast, thereby freezing the metal too quickly. All parts are correct, as I have examined everything directly connected with casting position and retracting action. Could you definitely explain the exact cause? (2) Another trouble is the wearing on front side first elevator just in front of pawl. (3) Another trouble is that the leaks through expansion or contraction in the pots cause the asbestos on side of pots to go off in white dust and choke flues, which of course causes the pots to take longer in heating through lack of draft. What is your remedy? I put asbestos over the leak, but it won't hang on for any length of time. (4) We have one-inch leading pipe, then half-inch, and finally three-eighths-inch, to tubing that supplies burners of four machines. Is that piping sufficient where quality of gas is poor? Company recommends one and one-half-inch governor, which they have supplied. Of these small troubles I would like your opinion." *Answer.*— There is a brake on the mold-turning shaft which can be tightened to prevent the clatter of the gears when they come into or go out of action. (2) If elevator jaws show wear, it must be that the elevator is not in alignment with the line-delivery channel. Adjust by means of barrel at bottom of elevator. (3) The packing beneath the throat of the pot falls away in time and ground asbestos mixed with water should be packed into place. The pot must be removed and inverted to do this. (4) An inch and a quarter pipe should feed the four machines, and a half-inch pipe be run to each machine and this connected by three-eighths-inch rubber tubing to the governors.

What Australians Think of Us.—G. I. Brayton, who has visited both countries, writes as follows to the *Australasian Typographical Journal:* "In Linotype and other machine work, American operators are credited with being the fastest in the world. This, if true, is brought about by simplification and system, and not by exertion. Copy is vastly better, most reporters being compelled by their employers to use typewriters in the preparation of copy; and, in fact, everything possible is done to assist the operator and increase the machine output. Composition is measured by ems, and the lines are counted as cast, instead of proofs being pasted. Heads and ads. set by hand are not measured, and there is no "fat" or "pick-up," except on those papers which allow corrections to go in as composition. Usually there is no secret about the computation, open-faced "clocks," or counters, being placed above the plunger, and operating each time a line is cast. In this way an operator knows exactly how much he has set at any time during his shift, and it results in men striving only to keep up a fair average each day, instead of rushing one day and perhaps failing the next. A fair average on newspaper work, say nonpareil, thirteen ems pica measure, would be from 4,500 to 5,500 ems (nine to eleven thousand ens) per hour, but there are offices, notably some evening newspapers, where a higher average is expected. An average of seventy-five hundred ens (without fat) under Australian conditions, is equal to about nine thousand in the States, and, contrary to the general impression abroad, operators do not work so hard in America as in some other countries, Australia in particular. In America practically all composition is done on time, there being few unions which work under piece-scale conditions. There being little piece work and very few bonuses, there is little incentive for a man to work, worry and shorten life over a machine which has been an unmitigated curse to the fraternity. In fact, unusually swift operators — men who can, and will, do two men's work — are not looked upon as benefactors to the trade in our country, and I have actually heard more about our own speed merchants in Australia than in their native land. The American machines are generally well-kept, and in some plants operating is almost a pleasure so far as mechanical details are concerned. All things considered, the Australian operator would, under American conditions, probably prove just as speedy as his American cousin."

RECENT PATENTS ON TYPESETTING MACHINERY.

Typesetter's Machine.— J. G. Gosselin, Hydepark, Massachusetts. Filed August 4, 1904. Issued January 30, 1906. No. 811,285.

Font Distinguisher.— R. M. Bedell, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed October 18, 1905. Issued January 30, 1906. No. 811,362.

Typesetting Machine.— J. S. Duncan, Chicago, Illinois, assignor to Addressograph Company, Chicago, Illinois. Filed May 23, 1904. Issued February 6, 1906. No. 811,-623.

Keyboard Operating Mechanism.— E. V. Beals, Boston, Massachusetts. Filed September 25, 1901. Issued February 13, 1906. No. 812,542.

Double-magazine Linotype.—Carl Muehleisen, Berlin, Germany, assignor to Mergenthaler Linotype Company, New York city. Filed October 20, 1905. Issued February 13, 1906. No. 812,585.

Double-magazine Linotype.—Carl Muehleisen, Berlin, Germany, assignor to Mergenthaler Linotype Company, New York city. Filed October 30, 1905. Issued February 13, 1906. No. 812,586.

Compressible Justifying Space.— D. B. Ray, Huntington, New York. Filed April 25, 1904. Issued February 27, 1906. No. 813,912.

Type-packing Mechanism.— F. A. Johnson, New York city, assignor to Unitype Company, Manchester, Connecticut. Filed May 6, 1904. Issued March 6, 1906. No. 814,048.

Adjustable Mold.— Carl Muehleisen, Berlin, Germany, assignor to Mergenthaler Linotype Company, New York city. Filed October 20, 1905. Issued March 6, 1906. No. 814,469.

Linotype Magazine.—T. S. Homans, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed September 9, 1905. Issued March 6, 1906. No. 814,542.

UNEXPECTED INDORSEMENT.

Uncle Jerry Peebles was looking over the list of "amended spellings" recommended by the reformers.

"Good land!" he exclaimed. "I don't see nothin' strange in them words. That's the way I've allus spelled 'em."— *Chicago Tribune.*

Labor, wide as the earth, has its summit in heaven.— *Carlyle.*

What is there that is illustrious that is not also attended by labor?—*Cicero.*

LITHOGRAPHY

BY GEORGE K. HENDERSON.

Under this department heading, Mr. George K. Henderson, instructor in lithography at Winona Technical Institute, will answer all queries pertaining to this subject.

Arrangements have also been made with him to assist workers in this line by making analyses and doing experimental work, at the following rates: Analysis of inks, compounds, acids and solutions, $2; recipes and working formulas, $1; examination of papers, inks and bronze powders, and making sample prints on or from same, $1; experimental work from any surface-printing medium, in one to ten colors, $1 per color. Address all matters pertaining to this department to George K. Henderson, Winona Technical Institute, Indianapolis, Indiana.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOLITHOGRAPHY.— George Fritz. $1.75.

GRAMMAR OF LITHOGRAPHY.— W. D. Richmond. $2.

LITHOGRAPHIC SPECIMENS.—Portfolios of specimens in the highest style of the art, published by Joseph Heim. Album Lithographique, part 20, $1.50. American Commercial Specimens, second and third series, $3.50 each. Modern Alphabets, $3.50.

HANDBOOK OF LITHOGRAPHY.— By David Cumming. A practical and up-to-date treatise, with illustrations and color-plates. Chapters on stones, inks, pigments, materials, transfers, drawing, printing, light and color, paper and machines; also chromo-lithography, zinc and aluminum plates, transposition of black to white, photo-stone and ink-stone methods, etc. Cloth, 243 pages. $2.10, postpaid.

THE Harris Press Company, Niles, Michigan, is now building rotary, self-feed one and two color presses, using zinc or aluminum plates, and on label work, etc., guarantee six thousand sheets per hour. These presses are built especially for the lithographic trade.

FINE LITHOGRAPHING ON ROUGH BOND-PAPER.— S. H., New York, asks, "How is fine lithographic work done on rough bond-paper." *Answer.*—To print properly on rough bond-paper (if dry printed) requires a high-etched transfer. To do this properly, the work on stone must be more thoroughly protected than is usual in colorwork, as stronger etching acid is used. The protection of the design is effected by melting the rosin powder and so combining it with the ink of the transfer. This is done usually by passing the flame of a gasoline torch (or open end of a rubber hose-pipe attached to a convenient gas jet) quickly over the surface of the stone. As rosin has a low melting point, a slight heating will cause it to soften and combine with the ink. On cooling, the rosin will form a hard glaze over the design, which acid can not penetrate, and a strong etching can be given the stone with safety. Another method which has not found as much favor is to melt the rosin by ether vapor. This is applied by soaking flannel (which is fastened on the face of a flat board at least four inches wider and six inches longer than the stone) with ether. Two strips of wood one-eighth of an inch thick are laid on ends of the stone, the ether board laid face down thereon and carefully drawn toward the operator. The vapor melts the powdered rosin, which combines with the inked design, as in the first-mentioned manner; the side strips are merely to prevent the ether board coming in contact with the stone. The flame method is most direct and is generally used. Extra heavy bond-paper is usually dampened either by a special damping machine, or by running through a trough, in quantities according to the weight and quality of the paper. These sheets are then placed in piles, allowed to expand and are then winded, turned and repiled and kept under weights or pressure until wanted at press. Such work after printing must be dried out, then pressed under considerable pressure between glaze or pressboards in a bookbinder's press, before they are fit for cutting and packing ready for customer.

THE PENROSE PROCESS YEAR BOOK.—This valuable illustrated work is now at hand and contains many practical hints on photomechanical work. A practical method of high-light half-tone work is shown with two examples, one of which, by Sears, London, was printed from aluminum, at rate of eight hundred impressions per hour. By this process all screen effect is eliminated in outside margins and the high lights are pure white, thus taking away photographically all the superfluous screen, which had formerly to be removed by the engraver or lithographic artist. The method outlined is making a regular continuous tone negative from the original design or copy, making a screen or half-tone positive from the negative, which is cut down with cyanid and iodin until all the points *are gone* in the *highest lights.* The printing negative is next made (by contact) from the screen positive, and this negative used in the regular manner. On coarse-screen work the positive can be used for printing. A reversing enamel is recommended for coating *after* the image is printed on the stone or plate, details of which are not given. While this process requires extra manipulation in the gallery, the speed, sureness of result and the cleanliness and artistic qualities of the work merit its consideration by the lithographer. The metzograph-screen process, of which eight examples are shown, lends itself admirably to the lithographic system. Screens Nos. 1 and 2 are clear and open in grain and should transfer and print well. C. G. Zander comes forward with a complementary color process. He uses four colors — yellow, scarlet, green and a purplish blue, and in two examples shows pure emerald green and bright purple effects, which are not achieved by the three-color process. The absence of a decided drawing plate, such as a black, will be against its favorable adoption by the lithographer. The book also shows an example of gelatin printing from a regular lithograph press, at eight hundred impressions per hour, which is nice, but has not the practicability of the high-light or grain-screen processes to recommend it. The Annual abounds in hints and examples of work in the process field, and to the lithographer the point of interest is that screens can now be had from Levy, Philadelphia, for zinc and aluminum work up to a size of 72 by 72 inches. The price of the book is $2.50 net, and can be had through The Inland Printer Company.

REQUISITES IN LITHOGRAPHIC STONE.— N. P. B., Marfa, Texas. "I wish to learn something more about lithographing stone. I lived quite near a quarry in Kentucky about which there was some excitement, but nothing was done. There were some fine slabs of the stone there, some of which I broke off and used as pillars for houses. I was told that it had some grit in it. I saw a sample of stone here the other day that resembled it and a stonecutter told me that it was free from grit. The Kentucky stone was in one piece about ten inches thick and ran into an immense bluff. This I understand is a better deposit to work if it is valuable. A channeler can be used and perhaps saws, so as to slab ready for shipment. Should this interest you further I will be glad to hear from you and to learn all about the sizes and thicknesses desired, also the necessary machinery for working it; that is, for getting it out in the rough,

ready for shipment; also what the stone is worth. It lies quite a distance from the railroad, which will make it expensive to handle. I can send sample." *Answer.*— The lithographic stone in general use is procured from the famous Solenhofen quarries of Bavaria. It is a pure, close-grained, sedimentary limestone, ninety-eight per cent pure carbonate of lime. The finest grade is blue-gray in color; the cheaper grades are softer than the blue-gray and are lighter in color, ranging to a creamy buff in the cheapest quality. The useful sizes are 8 by 10, 10 by 12, 14 by 16, 16 by 20, 24 by 34, 30 by 40, 33 by 47, up to 44 by 64 inches.



GOOSE LAKE AND CECEBE LAKE, MAGANETAWAN RIVER, "HIGHLANDS OF ONTARIO."
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal

The retail price, including duty on the imported stone, is from 2 to 24 cents per pound, according to size and quality. The thickness should not be less than two and one-half inches in the small size, nor greater than five inches in the largest; three and one-half inches is a good average thickness. Samples free from defects, such as veins, chalky spots and uneven color, should be forwarded for trial to the nearest lithographing establishment, and their opinion of the merits of the stone taken in good faith, before installing any expensive machinery for the working of the deposit. Native stone has often been tried and found wanting in some one of the many requirements of color, hardness, texture and uniformity when put to practical use, which previously had all the appearance of a first-class product. The Winona Institute, at Indianapolis, will be pleased to receive and test any samples of the stone which you may send, without any charge to you.

GLOSSARY OF YELLOW JOURNALISTIC PHRASES.

Hurtle — Verb used of motion of any falling object, especially a brick or a suicide.

Havoc — Good word to use almost anywhere.

High — Adjective which must be prefixed to noun "noon" in the account of a fashionable wedding.

Trust — Any money not owned by the proprietor.

Slay — Synonymous with obsolete verb "kill."

Juggle — What is always done with the funds of a bank or trust company.

Ironmaster — See Andrew Carnegie.

Bandit — Person guilty of crime against property for which the penalty is more than ten days in jail.

College Girl — Any woman who has ever gone to school.

Portia — See Rosalie Loew.

Burly — Adjective always applied to a male negro.

Prominent — Descriptive adjective applied to farmers, plumbers and dentists.

Boudoir — Any bedroom the rent of which is more than $1.50 a week.

Globe Trotter — Any one who has been to Hohokus, New Jersey, Kittery, Maine, or Peru, Indiana.

Raffles — Any thief who wears a collar.

Deal — Any business transaction which involves more than $1,000.— *New York Sun.*

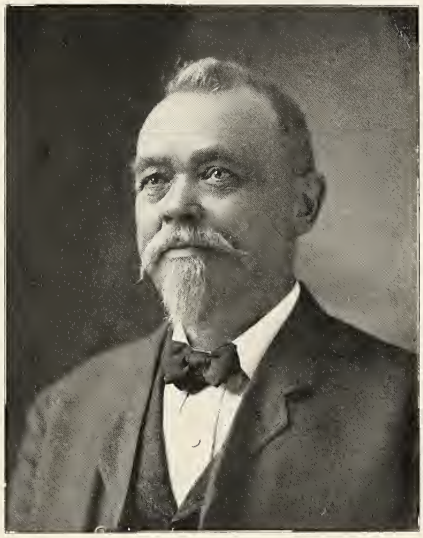
THE essentials for making a good newspaper man are "a receptive mind and willing legs."

DISCIPLES OF FRANKLIN.

NO. V — PETER M. BALKEN.

PETER M. BALKEN was born in Stavanger, Norway, April 24, 1837. He came with his parents to Chicago in July, 1849. In 1855 he went to work as a pressfeeder in the Chicago *Evening Journal* pressroom; John Namundsen was foreman. Shortly after that it became a union office and John Canberg became foreman. The circulation of the *Journal* then was about two thousand. The foreman would often have to take his own money over to J. W. Butler and buy a couple bundles of paper for that day's issue. Often they had a couple hundred insides left over which they would put under a board to use when they might run short. It often happened that outside readers would get the same insides two or three times over, when they would write to inquire how such a thing could happen. When Lincoln was nominated in the great Republican wigwam, corner of Market and Locke streets, Mr. Balken was one of the ushers. After Lincoln had been elected in November, one of his first official appointments in Chicago was that of Charles L. Wilson, publisher and owner of the *Journal*, as minister-plenipotentiary to the court of St. James, London, which position he accepted and held during the President's term. During his absence his elder brother, John L. Wilson, became publisher and manager. During the war the *Journal* boomed in circulation, so that he had to put in a four-cylinder Hoe press, turning out thousands of papers, running till late in the night.

July 10, 1865, John L. Wilson made Mr. Balken foreman, which position he held until the John R. Wilson Company sold out in November, 1895, to the Scripps Company, of Detroit. During the big fire of October 9, 1871, the *Journal* was the only paper that did not lose an issue, and a few days after Colonel Farrar, Gen. Phil. Sheridan and John B. Jeffrey went to Cincinnati and bought and brought home an old, discarded four-cylinder press, the car being attached to a regular passenger train. This press did duty both for the *Journal* and *Tribune* for quite a time. After the death of Colonel Farrar, John R. Wilson became manager, and after C. L. Wilson's death he became the publisher; the stockholders were John R. Wilson, Mrs. C. L. Wilson, Andrew Shuman, W. K. Sullivan, W. A. Hutchison, who is now postmaster of Oak Park, and Peter M. Balken. After leaving the *Journal*, Mr. John H. Anderson gave Mr. Balken work in his advertising department of the *Skandinaven*, which he held for a couple of years. When Peter B. Olsen was elected County Clerk he gave Mr. Balken a place in his office, which he now holds.



PETER M. BALKEN.

NELS JOHNSON.

Nels Johnson was born at Von, Norway, near Bergen, December 1, 1843. He came to America in 1850 and settled with his parents on a farm in Boone, Illinois. He came to Chicago in August, 1859, and commenced at the printers' trade on the Chicago *Democrat*, edited by John Wentworth. When he sold out, Mr. Johnson went to the Chicago *Evening Journal*, where he finished learning his trade and continued to work there until the spring of 1872, when he left to engage in the chair business as a member of the firm of the Johnson Chair Company, in this city, where he has continued ever since.



NELS JOHNSON.

THAT NEW MACHINE.

If you have put in a new typesetting machine and are standing behind the operator and wondering why he doesn't get up some of those five and six thousand per you have heard about, take a look over his shoulder at the copy you have given him to set. Does he have to fold it? Can you read it at a glance? Is it written on a typewriter or with a light pencil, lightly held? Does it contain marginal notes, written sidewise and endwise and crosswise? To keep a Linotype going the operator finds it easier if he is not obliged to translate and study and cuss the copy. There is no one thing that will take the ambition out of him like illegible copy. If it is easily read, it will put money in your pocket as well as his.— *Western Publisher.*

SOCIABLE OF THE BARNES-CROSBY CLUB.

The sociable of the Barnes-Crosby Club, held on February 24, was, as usual with the functions of the club, a pronounced success.

Invitations executed in photogravure were sent to all the employees of the Chicago house of the Barnes-Crosby Company. Over two hundred and seventy-five people attended the entertainment.

Although the decorating was not commenced until after 2 o'clock in the afternoon, in the evening the office, studios and photograph gallery were entirely transformed. Every incandescent light in the place was covered either by Japa-



nese lanterns or elaborate imitation of wrought-iron or stained-glass lamps. On each desk was a vase of flowers. One room was used as an art gallery, in which were displayed oil paintings and water-colors by the fifty-two artists employed by the Barnes-Crosby Company, Chicago house.

In the photograph gallery was provided an entertainment, both musical and dramatic, consisting of amateur and professional talent, which lasted for an hour and a half, after which the room was used for dancing, a five-piece orchestra being provided. An extra piano was placed in the main office, which was handsomely decorated with evergreens and flowers, while in the main artroom was served a buffet luncheon, and a number of tables were provided for a progressive card game. The affair was a grand success from every point of view.

This entertainment was planned and carried out by the Barnes-Crosby Club, which consists of about fifty members. The Barnes-Crosby Company had no connection with the affair with the exception of its kindness in turning over its quarters to the club for the evening, and also in permitting the night force of engravers to have a holiday for the occasion.

LITHOGRAPHIC STONE INDUSTRY IN BAVARIA.

The following particulars respecting the litho stone trade have been furnished by the British Vice-Consul at Nuremberg (Mr. S. Ehrenbacher): The quarries within the communities of Solnhofen, Moernsheim, Altendorf, Muehlheim and Langenaltheim cover an area of about thirty "tagwerk" (a tagwerk is equal to 34.0727 hectares). The afore-mentioned communities are owners of the greatest part of the quarries. After deciding to work a certain part, the necessary resolutions are passed by their common councils, and the area decided on is proportioned out in equal shares to the members of the community. It is then worked either by those members entitled to a claim, or by others who may become the purchasers. Such a share has a breadth of about three metres, the length is decreed from case to case by the council of the community. After having been worked, the quarries again become the property of the respective community. Furthermore, there are a few firms owning quarries.

As only the smaller part of the quarries have so far been worked, it is not to be feared that the Solnhofen lithographic stone quarries will become exhausted within the next 100 years. The output of large stones varies. Hitherto the demand — although it has greatly risen owing to the introduction of many large-sized lithographic presses — could always be satisfied. Should a scarcity of large stones occur it can easily be met by working the quarries more extensively. Nevertheless, it may be remarked that the output of large stones is not in proportion to the quantity of smaller-sized ones.

As already remarked, the quarries belong principally to the communities, and are worked by the entitled members of such communities. Recently a number of such entitled members of Moernsheim parish joined together and formed a coöperative society, with the object of working their respective shares jointly, and selling the stones on the market. Moreover, there exists a joint stock company with a share capital of 750,000 marks. This company owns very valuable quarries, from which it obtains blue stones of best quality. Apart from these there is another large firm owning quarries (blue and yellow stones), and about another dozen firms partly owning quarries and partly working quarries belonging to the entitled members of the communities.

The lithographic stones intended for export are not polished at home for use at the lithographic works, they are merely rough-ground, and the necessary finishing polish is given them at the lithographic works.

Up to now there were only two firms who did the rough grinding and polishing with machinery. A third firm is at the present moment on the point of putting up machinery. The cost price of a large grinding machine is about 2,500 marks; that of a small one about 300 marks. The grinding and polishing in all other works and quarries is done by manual labor.

The number of hands employed in the quarry district amounts to 1,500. It is impossible to give even the approximate cost of quarrying the stone; so much depends on the quantity of earth to be removed, thickness of the stone and the degree of hardness, etc.— *Exchange.*

WHILE our shop is comparatively small, we find THE INLAND PRINTER is a necessity as well as a luxury.— *The Plaindealer Printery, Sparta, Illinois.*

NEWSPAPER WORK

BY O. F. BYXBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Byxbee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLEN'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

THE STONEMAN.—By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

STARTING A PRINTING-OFFICE.—By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, $1.50, postpaid.

GAINING A CIRCULATION.—A book of 60 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, $1, postpaid.

ESTABLISHING A NEWSPAPER.—By O. F. Byxbee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, $1.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, $3.50, prepaid.

PRACTICAL JOURNALISM.—By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, $1.37, postpaid.

IT IS so easy to get into a rut in writing of local happenings week after week — in fact it is hard not to. The editor of the Lawrenceburg (Ind.) *Press*, while evidently in a despondent mood, came close to the truth when he wrote the following: "There is no work of a semi-literary character that will so surely bring on intellectual decadence as the writing of local news week in and week out from one year to another. The very fact of being compelled by a sense of duty to chronicle petty details and record matters of trivial moment has a tendency to divert the mind from the things which are important and enduring. Any person who regards the statement made at the beginning of this item as a pessimistic wail can readily find abundant substantiation by a critical perusal of any country paper where the same man has been doing the localizing for ten or more years." It is a good thing sometimes for a man to have a "style of his own" in writing, but even such a writer, no matter how distinctive his style may be, in time becomes tiresome. This habit of always writing in one way is easy to form and hard to overcome. A study of the styles of other writers and a determined effort to use different forms of speech in describing the same occurrences will surely prove successful to some degree. Meeting and talking with other editors always broadens a man and increases his versatility and usefulness. The attending of meetings of newspaper publishers and editorial associations is one of the best moves the local editor can make. He may meet broader men than himself and he may not. In any event his own mind will be broadened and he will return home to write more fluently and unconsciously in a different vein.

N. G. ABBOTT, publisher of the Okee (Wis.) *Klondike*, inserts this explanatory clause immediately after his name in the publisher's announcement, "Sole owner, editor, proprietor, compositor, pressman, proofreader, devil and all; therefore responsible for all breaks, mistakes, sideaches, and all other great convulsions of nature caused by or through the publication thereof." No opportunity here to shift the responsibility.

GOOD AD. COMPOSITION.—One of the greatest faults of the average compositor is a failure to appreciate the value of contrast and white space. Combined with these, and equally important, is proper balance. A compositor must



No. 1.

be able to grasp the effect of each line upon the finished ad. and not be obliged to see a proof before he discovers his mistakes. It is not necessary to fill every part of the space with either display or body matter, as a proper grouping of the matter and proper distribution of white space are the important essentials of a good ad. No. 1, set by B. R. Bowman, for *Goodwin's Weekly*, Salt Lake City, is a good example of contrast, white space and proper balance. No. 2 is another specimen of Mr. Bowman's good work. Other examples of good composition, under conditions where rapid work is required, are Nos. 3, 4 and 5, set by W. A. Darr, of Ottawa, Kansas. Mr. Darr is required to set from four to seven columns of ads. in seven hours each day, and his work shows that he has the faculty of thinking quickly, seeing the result of a display line before he sets it, and probably does not find it necessary to throw many lines back in the case, and as a consequence all of his ads., while simple of construction, are at once striking

and effective. M. A. Jensen, of the Cooperstown (N. D.) *Courier*, puts in a large amount of work on his ads. without getting just the desired result. He overlooks some of the essential qualities enumerated above.

Securing Circulation.—A publisher writes as follows: "I am interested in the study of how to get and hold circulation. Also, the best method to be used in securing boy agents, the kind of literature to be used in securing such boys and how to hold them after secured. I would greatly appreciate any information you can give me along this line." *Answer.*— The big dailies in the large cities secure their tremendous circulation through the use of premiums, but I do not believe in "premium circulation" for papers in small cities. It is undoubtedly true that where valuable premiums are offered, and where a large corps of canvassers are kept at work, that big circulations can be secured and maintained. But in the large cities advertising rates are sufficiently high to warrant the expenditure of more than the revenue from subscribers in securing them. In the small city it is different. The revenue from circulation must pay the expense of securing it. In the small city the subscriber must be induced to subscribe for the value of the paper itself. In order to get the *best* subscribers, and those who will *stay* when once secured, the premiums must not be given to the subscriber, but to the one who secures the subscription. The best plan for the country publisher, or for the publishers of the small city daily, is to inaugurate subscription-securing contests, preferably among young people, where prizes are given for a certain number of new subscribers, or for the largest numbers. Educational prizes, such as scholarships in colleges, local business colleges, musical conservatories, and the like, will prove very attractive and result in a healthy increase in circulation. Contests of this kind will develop agents, also. The young people who show the most enterprise will prove best fitted to represent the paper and handle its interests.



No. 2.



No. 3.

The Youngest Editor?— Fred L. Tipton, editor and manager of the Girard (Ill.) *Gazette*, writes: "If the statistics are within reach, I would be pleased to learn who is the youngest editor and manager who is actually running a newspaper. I took charge of the *Gazette* on December 1, 1904, being eighteen years of age two months before. I have been anxious to find out in regard to this, for if there is any honor in holding such a reputation I would like to find it out before some one comes in below me." The *Gazette* is not an amateur paper. Is there an editor and manager less than eighteen years of age, who claims the honor which Mr. Tipton questions?



No. 4.

Newspaper Criticisms.—The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Tacoma (Wash.) *New Herald Annual.*— A fully illustrated and comprehensive number. Many of the photographs were printed too black to get good half-tone results, but the presswork on these could have been improved by spending more time on the make-ready. The printing is flat.

Montrose (Colo.) *Press.*— A neat little paper. Ink distribution is uneven.

Kincardine (Ont.) *Reporter.*— The first page, or at least the greater portion of it, should be devoted to news. A light-faced parallel rule between the title and date line would be an improvement.

Odebolt (Iowa) *Record.* — First-page headings are still too small, particularly the second part.

Quincy (Mich.) *Herald.* — More prominent heads would improve the first page. The two cuts are not properly placed — the one in the second column should have been run just below the fold. Cuts in adjoining columns should never be run side by side.

Burlington (Wis.) *Standard Democrat.*—There is too much matter around the title. It would be better to omit the first and third lines, particularly if the first line can not be clearly printed. The ornaments around "Burlington Budget" are so prominent as to almost obscure the heading.



No. 5.

RATE CARD FOR A SMALL MONTHLY.— Herman Richter, of Cullman, Alabama, asks for a rate card for a small monthly, *St. John's Messenger*, writing as follows: "Please give me a rate card from one inch to a full page, also for back cover. Paper has sixteen pages, columns are sixteen ems wide and forty-eight ems long; circulation, six hundred. What per cent increase shall I charge for ads. in special and holiday editions, running from one thousand to one thousand five hundred copies?" *Answer.*— Your circulation is small and you will probably find it difficult to secure very good rates, but the following card should meet your requirements:

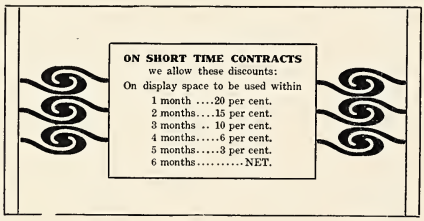
	1 mo.	2 mos.	3 mos	6 mos.	1 year.
1 inch	$ 1.00	$ 1.75	$ 2.50	$ 4.75	$ 8.75
2 inches	1.75	3.25	4.75	8.75	14.75
4 "	3.25	6.25	8.75	14.75	23.25
8 "	6.25	10.75	14.75	23.25	35.00
16 "	10.75	17.75	23.25	35.00	50.00

For the back cover, and for special and holiday editions, a fair increase would be twenty-five per cent.

SOMETHING NEW IN A RATE CARD.— The following letter and the rate card reproduced herewith will be found interesting reading to all publishers, particularly those who are puzzling over the question of equitable charges for space:

Mr. O. F. Byxbee, Chicago, Ill.: BILOXI, MISS., Jan. 23, 1906.

DEAR SIR,— Wish you would criticize our advertising rate card (enclosed)— the rates are on a circulation of 879 daily average — and the



No. 6.

appearance of the card. On Wednesdays and Saturdays we are now printing and circulating 940 copies per day. You will note that we allow "short time" discounts. For instance, if an advertiser contracts for fifty-two inches to be used within one month, we can allow twenty per cent discount; while if he would contract for fifty-two inches to be used within six months or a year, the rate would be net. Rather than carry a small contract as cited

INCHES	PER INCH
28	$0.16
52	.14
78	.12
100	.10
150	.09
200	.075
300	.06
400	.052
500	.046
600	.042
700	.04
800	.038
900	.036
1000	.035
1500	.032
2000	.03

WE ARE GLAD to change your ad as often as may be desired when electrotypes (or stereos.) are furnished, but if composition is necessary only the actual cost of same will be charged— from 5c to 10c per inch.

Minimum rate per inch on display space, 3c

One-time order, 25c.

Classified advertisements, 1c per word each insertion.

Reading notices, 10c per solid brevier line (6 words to line) for first insertion and 7½c for each subsequent insertion.

No. 7.

a long time, we prefer allowing these "short time" discounts. Of course, these discounts also apply to large contracts, but don't you think it a good plan to allow such a discount to induce a man to use his space in a hurry? We have found the discounts to catch an advertiser who only wanted to advertise a short time, when the net rate would have lost him. At one time the *Herald* permitted "juggling" of its rates, but learned that the only fair rates were those that were fixed. When we learned this we made our rates as low as possible to sell space, and under no conditions do we vary from our rate card. We allow *agents* a reasonable commission (we recognize as agents only those who handle several lines of advertising). All mail subscriptions are payable in advance, and city subscriptions are handled by a circulation manager who is responsible for all subscriptions.

Yours very truly, THE BILOXI DAILY HERALD,
W. G. WILKES.

Mr. Wilkes's card certainly has points in its favor. It will prove particularly attractive to the man who wants to use large space for a few issues during some special sale. Every advertising solicitor has met this difficulty and has been tempted to cut rates to get such a man started. In order to stick to the usual basis of rates it is frequently necessary to charge such a man twice as much for the same space as the regular yearly advertiser would be called upon to pay, and frequently the business is lost in consequence. Taking the rates on this card for example, if a man wanted to use three hundred inches it would cost him ordinarily 6 cents an inch, and he would have a year to use it in, but, applying Mr. Wilkes's rule, if he will use it in a month he can have it for 4.8 cents an inch. In this respect the scheme is certainly a good one, but the prices are very low. It would be better to eliminate the extra charge for changes, increase rates all along the line sufficient at least to cover the average cost of changes and then show the advertiser that you are sufficiently interested in his securing results from advertising in your paper to urge him to change his copy frequently.

SOME NEW RULES FOR ORDERING BLANK BOOKS.

1. Always wait until the last moment and then give to the binder that has the most work and is rushed. He can take on a few more.

2. Never bring copy. Tell him what you want, and then if he does not give you what you thought you wanted, you have him on your hip. What he don't know he will guess at. Long guesses in the past fit him for this kind of work, and he gets to that nicety in guessing that he generally makes a sure thing guessing wrong.

3. Make him furnish ruled and printed proofs; he likes this, and sometimes the unthinking comes in and neglects this and then his feelings are hurt and he feels slighted. Remember t[illegible]

4. Don't mention l[illegible]gs. L. binds all kinds and all different kinds, and wl[illegible] comes to that part on yours he surely can pick out your kind — the kind you wanted on your book — and if he does get the wrong binding make him bind it over. He ought to know better.

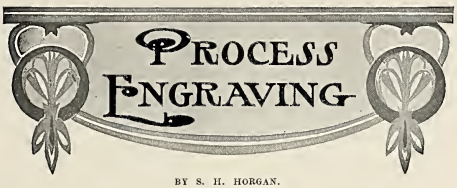
5. Make him state exact day of delivery; it's easy and he can do it, and if it is not exactly on the minute delivered, just as you thought you wanted it, it is not your fault. Throw it back on his hands.

6. When you get the book look it over carefully, and if you admire it keep still about it. Unwise ones might say something to swell the bookbinder up, and the next time he might not do as well, so it is best to kick all you can about it. Maybe he will chop off a dollar from the bill to get rid of you.

7. Don't neglect to name terms. You can have thirty, sixty, ninety or one hundred and twenty days, and if you want more take them. There's lots of them, and no reason why you should not have all you want. They are not like the days the judge gives, for you take what you want, and the other way you take what the judge gives. When you pay the bill, if you ever do, take off a cash discount. And don't forget to deduct express charges.

8. If any one asks you where you got your book tell him you got it in the city.

9. If you ever use the book up and want another one like it, or your business should demand another book, get it somewhere else.—*F. G. Sweet, Office Specialties, Williamsport, Pennsylvania.*



BY S. H. HORGAN.

In this department, queries regarding process engraving will be recorded and answered. The experiences and suggestions of engravers and printers are solicited. Address, The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

REDUCING GLASSES, unmounted. 35 cents.

PENROSE PROCESS YEAR-BOOK, 1905-6. $2.85 postpaid.

THREE-COLOR PHOTOGRAPHY.— By A. von Hübl. $3.60 postpaid.

PHOTOENGRAVING.— By W. T. Wilkinson, revised and enlarged by Edward L. Wilson, New York. Cloth, $3.

PHOTOENGRAVING.— By Carl Schraubstadter, Jr. Cloth, illustrated with numerous diagrams, and provided with a copious index. $3.

DRAWING FOR REPRODUCTION.—A practical handbook of drawing for modern methods of reproduction, by Charles G. Harper. Cloth, $2.25.

LESSONS ON DECORATIVE DESIGN.— By Frank G. Jackson, S. M. in the Birmingham Municipal School of Art. Elements, principles and practice of decoration. Cloth, $2.

THE HALF-TONE PROCESS.— By Julius Verfasser. A practical manual of photoengraving in half-tone on zinc, copper and brass. Third edition, entirely rewritten; fully illustrated; cloth, 292 pages; $2, postpaid.

THEORY AND PRACTICE OF DESIGN.— By Frank G. Jackson. Advanced text-book on decorative art; sequel to "Lessons on Decorative Design"; explaining fundamental principles underlying the art of designing. $2.50.

DRAWING FOR PRINTERS.— By Ernest Knaufft, editor of *The Art Student* and director of the Chautauqua Society of Fine Arts. A practical treatise on the art of designing and illustrating in connection with typography for the beginner as well as the more advanced student. Cloth, $2.

PHOTOENGRAVING.— By H. Jenkins. Containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapter on the theory and practice of three-color work, by Frederic E. Ives and Stephen H. Horgan, the frontispieces being progressive proofs of one of the best exhibits of three-color work. The whole is richly illustrated, printed on highly enameled heavy paper, and bound in blue silk cloth, gold embossed; new edition, revised and brought down to date; 200 pages. $2.

PHOTOTRICHROMATIC PRINTING.— By C. G. Zander. To learn the first principles of three-color work there is no better book than Zander's "Phototrichromatic Printing." The photoengraver or printer who attempts color-work without understanding the laws of color phenomena will waste much time and money. To supply this elementary knowledge is the purpose of Mr. Zander's book, and it is done in a thorough manner without scientific complexity. Fifty pages, with color-plates and diagrams. Cloth, $1.

PRIOR'S AUTOMATIC PHOTOSCALE.— For the use of printers, publishers and photoengravers, in determining proportions in process engraving. The scale shows at a glance any desired proportion of reduction or enlargement, as well as the number of square inches in the proposed cut. It consists of a transparent scale, 8 by 12 inches (divided into quarter-inch squares by horizontal and perpendicular lines), to which is attached a pivoted diagonal rule for accurately determining proportions. A very useful article for all making or using process cuts. $2.

THE PRINCIPLES OF DESIGN.— New ideas on an old subject. A book for designers, teachers and students. By Ernest A. Batchelder, Instructor in the Manual Arts, Throop Polytechnic Institute, Pasadena, California. This book has been designated as "the most helpful work yet published on elementary design." It clearly defines the fundamental principles of design and presents a series of problems leading from the composition of abstract lines and areas in black, white and tones of gray, to the more complex subject of nature in design, with helpful suggestions for the use of the naturalistic motif. There are over one hundred plates. Published by The Inland Printer Company, $3.

PRINCIPLES GOVERNING SCREEN DISTANCE.— John A. Carberry, New York, asks: "Are there any fixed rules governing the distance between the screen and the sensitive plate in making half-tone negatives? If so, please print them or tell me where they can be found." *Answer.*— Indeed there are fixed principles governing the screen distance for correct half-tone negative-making and these have been formulated into printed rules by William Gamble, which will be found in a booklet called "The Half-Tone Process," published at sixpence, by Penrose & Co., of London, but which can be had from their American agents, Tennant & Ward, 287 Fourth avenue, New York, or The Inland Printer Company.

COLLODION EMULSION FOR DIRECT THREE-COLOR WORK.— Here is the time of exposure and other details for using collodion emulsion in direct three-color work as given in *Process Work;* though conditions will vary under different circumstances, still it will give an approximate guide to those who have done no previous work in this line: "Enclosed arcs of ten amperes on one hundred volts alternating current were used for illumination; lamps placed about two feet from board; copy a fairly dark water-color reduced one-half; Cooke process lens and Klein filters; ruled screen 150 lines to inch; screen distance 3.32 inches. Exposure for the yellow plate through colorless filter, on plate sensitized with canary yellow, four minutes with *f*-32 stop. If Albert's A sensitizer were used, exposure would be two minutes under the same conditions. Exposure for the red printing plate through greenish-yellow screen, with plate treated with sensitizer A, stop *f*-45, two minutes. Exposure for the blue printing plate, with reddish-orange screen, *f*-45, four minutes. Orange flame lamps were used in lamps for the last exposure."

THE INVENTOR OF THE ENAMEL PROCESS.— The editor of this department wrote a letter to the *British Journal of Photography* about the previously unsettled question as to the inventor of the enamel process. It brought out the following information from Mr. William Gamble which is worthy of reprinting here almost entire, owing to the importance of the subject. Mr. Gamble says: "In regard to the letter of Mr. Horgan, in your issue of January 19, I think that there is no doubt that Charles E. Purton is the inventor of the enamel process. Mr. F. E. Ives, who was a fellow worker with Purton, has acknowledged this, and Mr. C. E. Chetham, now residing in St. Louis, who was also working in the same establishment, has also borne testimony to the same fact. I met Mr. Chetham in Buffalo last year, and he gave some reminiscences of their early days of processwork. He related how Purton used to work in a separate room, which he kept carefully locked, and no one was ever allowed to find out the details of his process. Mr. Max Levy, another of the "old-timers" of photoengraving in Philadelphia, confirmed Mr. Chetham's reminiscences. Mr. McIntyre, of the Electro-tint Engraving Company, Philadelphia, is another who could tell us something about Purton, who is now dead. I think it is only about a year ago that I saw notices in the papers of his death. Purton undoubtedly got his idea from the Garnier process, which was described by Major-General Waterhouse in the *Photographic News* for November 4, 1881. I find I have a copy of this article, and, as the paragraph bearing on this subject is a short one, I think you will find the space to quote the same. It is as follows: 'PHOTOENGRAVING OF LINE WORK.— A plate of copper is prepared by covering it, either by flowing or with a roller, with a very thin coating of a solution of:

Sugar	2 grams
Water	14 grams
Bichromate of ammonia	1 gram

This coating is equalized and quickly dried by means of an arrangement which keeps it in rotation over a warm place. As soon as the plate is dry a positive cliche of the drawing to be reproduced is laid upon it, and the whole exposed to the sun for a minute, or to the electric light for three minutes. The reaction produced is the same as with citrate of iron, but much quicker; the exposed parts are no longer hygroscopic, but in the parts protected by the

lines of the drawing the sensitive coating has retained its stickiness and will hold any powder that may be passed over it, thus producing a very clear image of the drawing. The coating being excessively thin, the little moisture it holds and the powder applied suffice to break its continuity, especially if the powder be slightly alkaline. If the rest of the surface were equally resisting, the plate might be bitten at once, but light alone is not enough to produce complete impermeability; the action of heat must be combined with it. The plate is therefore placed on a grating with wide openings, a large flame is applied underneath, and it is heated till the border where the copper is bare shows iridescent colors. The sugary coating thus becomes very hard in the exposed parts, but under the powder it is broken, porous and permeable to acids. The surface is then covered with the biting fluid, which is a solution of perchlorid of iron at 45° Baumé, and after a few minutes' contact the plate is engraved. It only remains to clean off the bichromate sugary coating which forms the reserve, and which, being hardened by heat, resists ordinary washing. It is removed perfectly by rubbing the surface with a hard brush and warm potash lye; the plate is then ready for printing. Sometimes it is necessary to give several successive bitings, or to use a resinous grain; in such cases various methods of the engraver's art are employed.' It will be seen that the process described applies to intaglio etching, but in another part of the article it shows how it can be applied to relief blocks in the same way, only, of course, using a negative instead of a positive. The inventor, however, suggests powdered bitumen for dusting on the image. It is not stated in the article what powder should be used in the process we have quoted, but Mr. Ives has stated that Purton used a 'tin salt.' This process has come up again as a new thing, under the title of the 'dry enamel' process, in which it is understood that the powder is anhydrous carbonate of soda. As to the claims of Mr. Hyslop, I have heard it related that he landed in America as a photographer, and found it difficult to get employment, but seeing an advertisement in *Wilson's Photographic Magazine* for a photoengraver, he bought a copy of Wilkinson's 'Photoengraving,' and steadily 'crammed' himself with the subject; then, boldly presenting himself for employment in that line, he was engaged, and proved a very useful man to his employer. I have been unable to find the date of Hyslop's article in the *Artist Printer*, but I see Mr. Horgan puts it at the beginning of 1892, which I do not think is correct. I think it was in 1893. *Wilson's Magazine* discovered and quoted the article in a condensed form. In the original article Mr. Hyslop states that he bought an enamel formula for $50, which contained gum arabic as a base, and finding himself unable to work it he began to experiment with glues, finally hitting on fish glue. I think this is the whole history of the enamel process, but possibly some of our American friends can fill in more details."



AN HOUR'S CATCH AMONG THE THIRTY THOUSAND ISLANDS OF THE GEORGIAN BAY.
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

THE CONGRESS AND THE PROCESSWORKER.—Among the bills before the present Congress are many of special interest to readers of this department. The one for the

removal of the tax on alcohol used by photoengravers and in the arts should pass. The bill legalizing the metric system of weights and measures is another good measure, but the endeavor to remove the tariff from one of the greatest luxuries of the rich, foreign-made paintings, should be resisted by every friend of our art and artists. American artists struggled hard some years ago for a tariff to protect their art from competition with the foreign trash that was flowing into this country free of duty. They succeeded in getting a duty put on foreign paintings. Now, under the influence of J. Pierpont Morgan, and a well-organized literary bureau, working through all the States, artists are being cajoled into advocating the admittance of millions of dollars' worth of Mr. Morgan's paintings into this country free of duty. The hundreds of millions of dollars' worth of other paintings that will be rushed in here with the tariff removed will put our American artists and designers out of business. It will be found that the same interests that favor removing the duty from art are the very ones that want the present copyright law continued, which permits foreign-made engravings to come into this country and then be protected by American copyright.

The Declining Art of Book Illustration.—Under this title the New York *Evening Post* prints a long editorial and attributes, among other causes, the decadence of book illustration to process reproduction which, it says, has wrought even greater havoc with the art of illustration. "Formerly, the art possessed a grammar. To draw on the wood block a design that must be followed stroke for stroke by the engraver was a serious occupation. Blurred and half-realized drawings were unpardonable under these conditions. In any case, whether the illustrations were cut in wood or copper, a trained artisan stood between the illustrator and the public. Not only has "process" removed all the salutary deterrents, but it has set a premium upon a rough and inartistic handling of the brush and the pen. The aim of illustrators is naturally to produce not a delightful drawing, but a good cut, and this has led to the production of drawings quite without charm and finesse, calculated for brusque and exaggerated effects, to be softened by the half-tone web and the reduction in scale. Very few of these drawings have independent charm. The remedy lies, we believe, with the publishers. We can not, in the interest of art, abolish photoengraving, but the publishers can abstain from exploiting mediocrities. They can decline to illustrate their books until illustrators of tolerable parts appear." The editorial writer was entirely right in laying the blame for the weaknesses of modern illustration on the publisher, but far astray in attributing any of the trouble to the reproduction processes. It is possible now to reproduce the artists' originals more faithfully than ever before, but artists are not given the time or paid the prices to enable them to hire models and prepare drawings with the care they did formerly. Then the engraver is neither given the time nor paid sufficient to turn out the best work. If the author, publisher, artist, engraver and printer could collaborate, using time and money as they formerly did, the illustrations of to-day would be superior to any in the history of the printing art, for all the requirements are more nearly perfect than ever before.

Reliable Albumen Formula for Hot Climates.—"Reader," Havana, Cuba, writes: "In the December number of The Inland Printer you gave me some good advice about rollers. I took your advice and got from New York a smoothskin lithographing roller and I am now 'on easy street.' I want to trespass on your good nature once more and ask you if I can improve on the inclosed albumen formula I am using on zinc? I print in about two minutes in sunlight and on rainy days often ten to fifteen minutes." *Answer.*—Your albumen solution is entirely too thick and there is too much bichromate of ammonia in it, which accounts for its printing so slowly. If you will dilute the albumen solution just one-half with water it will work better. Mr. H. Hands, of Jubbulpore, East Indies, uses Cronenberg's albumen formula, which he says keeps well in hot weather and is absolutely reliable. It will pay you to try it. The formula being:

NO. 1.

Liquor ammonia	12 ounces
Alcohol	8 drams
Ammonium bichromate	120 grains
Water	4½ ounces

NO. 2.

White of eggs beaten to a froth and allowed to settle.

SENSITIZING SOLUTION.

No. 1	1 ounce
No. 2	1 ounce
Water	2 ounces

Filter properly and whirl the zinc plate to get an even coating.

Makers of Fish Glue.—A French reader of this department writes from Paris to inquire who are the makers of fish glue in this country? *Answer.*—There is Le Page, the maker of the well-known article that can be had anywhere. Then there are the American Glue Company and the Gloucester Isinglass & Glue Company, both of Gloucester, Massachusetts.

Etching Brass.—The *Process Photogram*, our ably edited contemporary in London, has prefixed to its old title a new one, so that it is now the *Process Engraver's Monthly*. The new name is an improvement, though it would seem impossible to improve the contents of this magazine. Imitation being the sincerest flattery, The Inland Printer feels complimented that our contemporary has added a department which we were the first to introduce, where technical questions are answered. Here is their answer to a query about etching brass: "When etching brass I find the enamel dot leaves the metal after having one good etch to get a fair proof. On copper our enamel stands firmly. What causes, generally speaking, are indebted to swimming-off, and what may be the cause in our special case?" *Answer.*—The enamel leaves the brass probably for the same reason as it leaves the zinc, whatever that is; perhaps because metal expands on heating and does not contract on cooling. Use a hardening bath after the plate is developed, dyed up and well rinsed. This bath consists of:

Water	500 c.c.	17½ ounces
Methylated spirit	50 c.c.	1¾ ounces
Ammonium bichromate	31 grams	30 grains
Chromic acid	.324 grams	5 grains

Allow the plate to remain in this from one to five minutes, according to age of bath. Well rinse and burn in, and etch plate afterward in iron perchlorid at 45° Baumé. Heat the iron solution if it does not etch the plate quickly enough, rather than dilute with water.

THE SOURCE OF IDEAS.

I find The Inland Printer a great help in refreshing ideas, and fully believe it indispensable in any well-regulated print-shop. I have secured ideas from the perusal of its pages which have been valuable to me in my work.—*Millard F. Rushing, Anna, Illinois.*

Solomon numbered every block intended for his temple. Details are the building blocks of business. Watch yours.—*System.*

Book Review

"Henderson's Sign Painter," R. Henderson, publisher, Newark, New Jersey (100 pages, 8 by 10½, price $3), is a book of designs and letter forms for the sign painter. The examples not being accompanied by any exposition of principles, the purpose of the work as a ready reference for obtaining the ideas of customers is apparent.

A comprehensive and finely illustrated large folio book, of 104 pages, 10 by 15 inches, containing four hundred halftones, with concise descriptive matter, has been issued by Mr. Moses King, 225 Fourth avenue, New York, publisher of "King's New York Views." This is one of the finest, if not the finest exposition of the city of New York that we have seen. It is edited by William Wirt Mills, of the *New York Evening Mail*. The volume is not only pictorially interesting, but valuable for reference. Paper, 50 cents; cloth, $1.50.

An interesting series of progressive writing books have been placed on the market by B. D. Berry & Co., 378 Wabash avenue, Chicago. Book one contains original rhymes by Carolyn Wells for headlines, with illustrations in color by Fanny Y. Cory, Ethel Franklin Betts, Will Vawter and B. Cory Kilvert. Book two has selections from Mother Goose for headlines with illustrations by Lucy Fitch Perkins. Book three has selections from Longfellow's "Hiawatha" and other literature concerning animal life for headings. Book four has selections from "Hiawatha" and other literature concerning plant life for headings, and book five is a development of small letters by a series of practice exercises.

An Eight-hour-a-day Wage Calculator, prepared especially for printers for making up pay-rolls and figuring cost, is advertised in this issue and must prove of value to the bookkeeping department of any business where employees work on the basis of forty-eight hours a week, whether Saturday be a short working-day or not, as it saves all figuring and shows at a glance the amount due any employee for one-quarter of an hour or for forty-eight hours, and for every quarter of an hour between — at any rate of dollars, or dollars-and-a-half per week, up to $30 per week. The work was compiled by a practical accountant and is guaranteed to be absolutely accurate, and has a cut-out index for instantly finding each table. In its use there does not seem any possibility of error, and the mental work is reduced to a minimum. The price of the book is within the reach of any business house, and is modest in comparison with the value of its contents. The publisher is Arthur M. Duff, of Boston, Massachusetts.

"A League of Peace" (Ginn & Co., Boston, Massachusetts, paper, 10 cents; 100 copies, $5) is the title given to a rectorial address before the students and faculty of the University of Saint Andrews, in Scotland, by Andrew Carnegie. In his multitude of duties, such as cutting coupons, giving away foundations for libraries and entertaining notables at Skibo Castle, the former steel king has found time to frame up a severe arraignment of Mars and his followers. Mr. Carnegie calls as witnesses ancients such as Homer, and men of our times, to prove that war is inhuman and profitless, sketches the genesis and history of international arbitration, calls mere physical courage by its right name and exhorts his hearers, male and female, to oppose war by answering its promoters when they begin their jingoistic campaigns. In Mr. Carnegie's opinion, the lovers of peace in highly civilized countries could prevent war if their efforts were intelligently directed, and he suggests the organization of arbitration leagues pledged to compel the submission of international disputes to arbitration — even if the leaguers have to go the length of severing party ties. The pamphlet is published for the International Union and is a strong exposition of the gospel of peace by one of the most hardheaded, practical men of the day. Incidentally, the lessons taught and principles portrayed can be readily applied to the industrial world.

About a year ago Mr. O. F. Byxbee, editor of the newspaper department of The Inland Printer, severed his connection with the *Scranton Tribune* as business manager, and took up the development of a new trade journal, the *American Carpenter and Builder*, owned and established by Mr. Radford. The record of one year's work is shown in



tabulated form in the first anniversary number on the cover-page, the original of which is lithographed in striking colors, and a half-tone reproduction shown herewith. No better evidence of Mr. Byxbee's business ability could be shown.

Announcement is made from New York of the merging of the publishing houses of Herbert S. Stone & Co., Chicago, and Fox, Duffield & Co., of New York. The New York firm has purchased the entire good will, assets, plates, sheets and publishing plant of the Stone Company, whose publications will henceforward be catalogued in the Fox-Duffield list. *The House Beautiful*, edited by Herbert S. Stone, will be directed, as heretofore, in Chicago. The combination places Fox, Duffield & Co. in the front rank of the younger houses, with a large proportion of standard and successful works. Herbert S. Stone & Co. succeeded, in 1898, to the firm of Stone & Kimball, founded in 1893.

They were unusually fortunate from the start in "discovering" new authors with successful books. Among these have been George Barr McCutcheon, author of the "Graustark" volumes, George Ade, Hobart Chatfield Taylor, H. K. Viele and many others. Among authors of longer-established reputations are Henry James, George Bernard Shaw, George Moore, Maeterlinck, Ibsen, H. G. Wells, Octave Thanet, David Swing, William Sharp and "Fiona McLeod," Robert Hichens, Harold Frederic, Norman Hapgood, Clyde Fitch, Egerton Castle, Robert Herrick, and many others. Probably the most important undertaking of the Stone house was the great definitive edition of the works of Edgar Allan Poe, edited by George E. Woodberry and Edmund Clarence Stedman. A success of another kind was the furore created a year or two ago by the publication of the remarkable book in which the young woman called Mary Maclane professed to give an unbiased account of herself. The firm of Fox, Duffield & Co. was founded three years ago by R. K. Fox and Pitts Duffield, of New York. Mr. Duffield, who received his training with Charles Scribner's Sons, is the active manager of the business. Mr. Fox was formerly connected with R. H. Russell, whose business was later absorbed by Harper & Brothers.

"The Country Town" (The Baker & Taylor Co., New York; price $1) is a "study of rural evolution," by Wilbert L. Anderson, in which the author dives deeply into the causes of the tendency to leave the delights of the "old farm" for the bustle and worry and excitements of the smoke-covered and dun-paved city. It is the fashion to refer to this seeming phenomenon in a pessimistic vein, and some will have it that the movement is born of the growing frivolity of the people — a yearning for gaiety that stifles all the higher and more substantial qualities that inhere in mankind. Mr. Anderson maintains — and proves — it is economic compulsion rather than social attraction that is behind the migration. Convinced that the movement is in harmony with the progress of society, the author is optimistic; even the abandoned farms of the East do not disturb him. They simply represent the elimination of land which never was desirable for agriculture, and in these days of comparatively efficient transportation are quite unfit. And so with the collection of decaying cottages one sees here and there in the country, their abandonment tells the tale of farm laborers who, struggle as they might and with favoring circumstance were always just this side of mendicancy, having moved to the city, where opportunities of employment are somewhat better for the head of the family, but which means limitless improvement of outlook for the growing generation. Though the movement is in obedience to natural laws, and therefore far from dangerous, the volume of it has been greatly exaggerated — much being written and said of the country town (using the term in the New England sense) that has suffered a decrement in population, while its modest neighbor which has increased almost as much is not heralded to the world. Though alive to the influence machinery has had on the country town, Mr. Anderson has faith in it, and has strong hopes that it may continue to be a factor in the upbuilding of society. The book contains many interesting and little-known facts concerning the matters discussed therein, and has a very flattering introduction by Rev. Josiah Strong, D.D., president American Institute of Social Service.

DEVELOPING ORDERS.

To the experienced advertiser there is no guessing as to what constitutes the real fight. The battle is not altogether in the production of inquiries but in developing the inquiries into orders.— *The Western Monthly.*

AUSTRALIAN AND AMERICAN METHODS.

G. I. Brayton, in the *Australasian Typographical Journal*, says:

"There is a great difference between the job offices in Australia and America. So far as my rather limited observation of Australian job offices has extended, they seem far behind the times in the matter of type and accessories. Type in the average American job office (unfortunately there are good, bad and indifferent offices there, as well as here) is on the point system. In Australia the average job-office seems to contain a miscellaneous assortment of more or less accurately cast type and borders from various parts of the world. One office in which I worked had material from England, America and Germany, and each foundry, apparently, had cast its type and borders on a different system. As a rule the American job-office contains a full series, consisting of from four to ten sizes of each face represented, thus permitting cards and small matter to be set completely in one style type. This, of course, simplifies composition and saves time. Instead of setting up quad lines to fill space, the American compositor is supplied with liberal quantities of 'labor-saving' leads, slugs and brass rule, and wood, metal and steel furniture. The leads, one, two and three-point (twelve, six and four to pica), the slugs being six and twelve-point. All material is accurate as to size and length, and reasonable care is exercised that it shall not become battered on edges or ends. The cases, as a rule, contain plenty of sorts, and are laid in the most convenient manner, with caps in the lower right-hand side of the upper-case, and figures in the upper right-hand side of the lower-case. Such accented letters as ö, é, etc., would be hard to find in an American office, as there is little call for them, spelling (and pronunciation) being quite different from the English and Colonial system. Your word 'jewellery' is spelled in America 'jewelry,' the unnecessary 'le' being dropped. So it is also with many other 'dead' letters; and even the much-discussed 'Yankee twang' is, after all, partially the result of this system of spelling and pronunciation. Sometimes I wonder if my Australian friends realize how strange their 'twang' seems to me."

ANDROO KARNAGY SPELING URGD BY KOLUMBIA STUDENTS.

FONETIC SISTEM AND MOVEMENT OF EDUKATORS IN ITS FAVOR INDORSED AS PROPER THING IN KOLIJ XAMINASHUNS.

A number of Columbia students gathered on March 22 in New York, in University Hall on the campus, and formed the "Fonetic Speling Assosiashun of Kolumbia University," binding themselves to adopt the principles of the reformed method of orthography for which Andrew Carnegie recently furnished a fund of $15,000. Martin C. Ansorge, third-year law student, was elected president and these resolutions were adopted:

Wheraz, Numerous prominent edukators thruout the United States hav pronounzed the English sistem of speling now in vog cumbersum, unweeldy and illojikal; and,

Wheraz, Movement heded by wun of our on profesors has bin instituted for the purpus of kreating a sentiment in favor of reformed, revizd and simplified methud; and,

Wheraz, This movement meets with appruval of Kolumbia students in general; be it

Resolved, That we, the students of Kolumbia university, to-day assembled, do hereby form ourselvz into an organization to be non as the "Fonetic Speling Assosiashun of Kolumbia University"; be it further

Resolved, That we herby bind ourselvz to abid by the desishuns of the "simplifid speling board," recently organizd by Androo Karnagy, wen mad publik, and adopt the folloing prinsipls to be a gid in all privet korespondenz and in our kolij xaminashun papers: First that al silent letters be dropt; sekond, that al diphthongs be replased by singl vouls wherever possibl, and third, that fonetic sistem of speling be adopted.

SPECIMENS

Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

SPECIMENS from Thomas Henry Stafford, Plainfield, New Jersey, show tasty typography and good presswork.

SPECIMENS received from Jester, the Printer, Eaton, Indiana, show good type arrangement and careful presswork.

SPECIMENS received from Douglas H. Cooke, Inc., New York, show excellent typography, good presswork and a discriminating use of color.

TASTY typography, discrimination in the use of color and careful presswork characterize the productions of A. K. Ness, Cheboygan, Michigan.

ALABAMA PAPER & PRINTING COMPANY, Birmingham, Alabama.— The letter-head and envelope are original in design, and the colors of ink and paper are quite in harmony.

CAREFUL typography, good design, harmonious color combinations and excellent presswork are all found in the specimens from the McMullen Printing Company, Cheboygan, Michigan.

J. A. SNYDER, Lititz, Pennsylvania.— The letter-head and receipt are neat specimens of type arrangement and presswork. The envelope corner card is rather overdone in ornamentation.

J. A. T., Mount Vernon, Ohio.— Do not use too many type-faces in a single specimen. The bill-head submitted would have been very much better if one or two faces had been used, instead of four.

HARRY MINCK, JR., Gibbsboro, New Jersey.— Imperfect joining of rules is a noticeable feature in the commercial specimens submitted. Rule and panel work, unless carefully handled, should be avoided. A few of the

THE HIGHEST GRADE OF PRINTING AT THE LOWEST POSSIBLE PRICE

GIBBSBORO, N. J., 190

M

DEBTOR TO

HARRY MINCK, JR.

SOCIETY PRINTING AND FINE STATIONERY — JOB PRINTER — WORK ALWAYS READY WHEN PROMISED

No. 1.

specimens have a rather crowded appearance, owing to the fact that the type-faces selected are too large. One of these is reproduced (No. 1) with a resetting (No. 2). The presswork on all the specimens is good.

THE HIGHEST GRADE OF PRINTING AT THE LOWEST POSSIBLE PRICE

GIBBSBORO, N. J., 190

M

DEBTOR TO

HARRY MINCK, JR.

JOB PRINTER

SOCIETY PRINTING AND FINE STATIONERY — WORK ALWAYS READY WHEN PROMISED

No. 2.

R. FRED HARRIS, Huntington, West Virginia.— The advertisements submitted show originality in design, but in many cases there is too much ornamentation. The rules are very imperfectly joined.

AN exceptionally attractive package of menu specimens is at hand from the printing department of the Auditorium Hotel, Chicago. The menus are artistic in design, and the composition and presswork well executed.

JOHN E. WALSH, Roxbury, Massachusetts.— The samples submitted are appropriate, well balanced and not overdone. A grouping together of the three lines pertaining to the date would, however, be an improvement.

LENNIS BRANNON, Talladega, Alabama.— The specimens submitted are with few exceptions very artistic and well designed. The type matter on the first page of the program crowds the top and bottom rules a little too closely. Periods as word ornaments detract from the appearance of some of the specimens. Red and blue as a color combination are not a success.

LE ROY BOGGS, Mitchell, South Dakota.— Considering the time limit under which the program was turned out, it is a very creditable piece of work. The cover is rather weak, however, both in design and color scheme.

F. WEINMANN, Frankfort, Illinois.— The commercial specimens submitted show a tendency toward overornamentation. The posters are good in design and the borders and type-faces cut from leather are exceptionally well done.

THE Neal Press, Marion, Indiana.—A little more care in the joining of rules will add immensely to the appearance of your work. In the letter-head and envelope the feature lines are spaced entirely too much. The first

GLASS BLOCK — PHONE UNITED 849

Shy Bireley

Successor to Bireley Bros

Wall Paper, Window Shades, Stationery,

School Books *and* Supplies, Pictures,

Picture Frames, Etc.

Marion, Ind., 190

No. 3.

page of the Phi Delta Kappa program is confusing on account of the number of colors being too evenly distributed. As an illustration of the fact that a neat and simple type-design in one color is often preferable to a

GLASS BLOCK — PHONE UNITED 848

SHY BIRELEY

Successor to Bireley Bros.

Wall Paper, Window Shades, Stationery

School Books and Supplies, Pictures

Picture Frames, Etc.

MARION, IND., 190

No. 4.

more complicated piece of typography in two or more colors, the Birely note-head is reproduced (No. 3). The original is in black, with the rules and the initials in the feature line in gold bronze. No. 4 shows a resetting.

J. EDELSON, Pittsburg, Pennsylvania.— The composition of the specimen submitted is very creditable, with the exception of the joining of the rules. More care should have been given this feature. The distribution of ink is very poor.

THOMAS PERRY, Selma, Alabama.— The type used on all the specimens is much too large, the envelope being the most satisfactory. The letter-head of W. A. Autrey & Co. (No. 5) is perhaps the best, or worst, example illus-

W. A. Autrey & Company

MANUFACTURERS' AGENT — High Grade

Pianos, Organs & Supplies.

806 Broad Street. — Selma, Ala.

No. 5.

trating this point. In the original, the rule across the top is in a dark reddish-brown, balance in black. A resetting is shown. (No. 6).

W. A. Autrey & Company

Manufacturers' Agent

High-Grade Pianos, Organs and Supplies

306 Broad Street

Selma, Ala.

No. 6.

H. F. LAKE, JR., Gunnison, Colorado.— The letter-head is neatly arranged, but the improper use of colors ruins the appearance of the finished product. As printed, the line which should stand out the most prominently

is in reality one of the weakest. The use of but one color — the blue — would have resulted in a much better specimen.

Will R. Burge, Pacific Grove, California.— The use of the ornamentation on the letter-head is detrimental rather than otherwise. The appearance would be improved by omitting it and moving the type matter to the center of the sheet.

A Catalogue for S. A. Maxwell & Company, by the Binner-Wells Company, Chicago, is thoroughly in harmony with the artistic productions of this firm. The typography and design are well chosen and the half-tones carefully handled.

A. W. Hammond, Cleveland, Ohio.— The specimens submitted are very creditable. More care should be given, however, to the distribution of white space, the type matter on some of the samples crowding the top and bottom rules too closely.

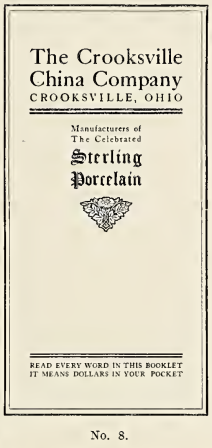
A. B. Waterman, Colorado Springs, Colorado.— The advertising leaflet is neat in design and the presswork is carefully done, but the colors are too evenly divided, especially on the first page. A lighter color should have been used for the rules.

Trent Printing Company, Knoxville, Tennessee.— The letter-head would be greatly improved by placing the rules which form the panel a little closer together. The colors on the leaflet are too evenly divided, resulting in a confused appearance.

J. J. Emerick, Wheeling, West Virginia.— The most noticeable feature in the specimens submitted is the imperfect joining of the rules. This is especially conspicuous in the cover of the booklet for The Crooksville China Company, although in this case it is principally the fault of the make-ready.



No. 7.



No. 8.

This cover is also very weak in design, being practically the same tone from the top to the bottom, with no relief by whiting out. The use of too many rules across the page also has a tendency to keep the tone too uniform. A reproduction is shown (No. 7) with a resetting (No. 8).

An artistic booklet is one issued for the Colonial Trust and Savings Bank, by the Marshall-Jackson Company, Chicago. The text is printed in black and orange, with the half-tones in a beautiful shade of brown. The cover is embossed.

A. W. Isgood, Bradford, Pennsylvania.— The type-designs are carefully arranged, but the envelope corner card should be less ornamental and the light-faced rules should be replaced with heavier ones. The presswork could be greatly improved.

Robert H. Gould, Binghamton, New York.— The specimens are very tasty in typographical arrangement and the presswork is beyond criticism. The use of a yellowish green in the place of blue would have given a more pleasing color combination.

J. W. Roper, Chicago.— While your idea of the disputed page is rather too ornamental for the purpose, the other proof is not an improvement. The type-face in both proofs is rather weak and a plainer face would have been better. The other pages are much better.

Quite in keeping with the high standard of excellence of the Griffith-Stillings Press, Boston, Massachusetts, is the program for The Boston Baptist Social Union. The harmony of color, beautiful designs and careful presswork make it a most artistic specimen.

W. B. Kershaw, Mount Union, Pennsylvania.— The type used on the circular is too nearly uniform in size. Bring out the important lines and subordinate the balance, instead of attempting to emphasize everything. Imperfect joining of rules, injudicious whiting out and an excess of panels characterize the envelope corner card.

H. J. De Bock, Chicago.— The specimen submitted is interesting as illustrating what can be accomplished in the way of making sketches of work before beginning composition. This is especially valuable in designs in two or more colors. The page is very creditable.

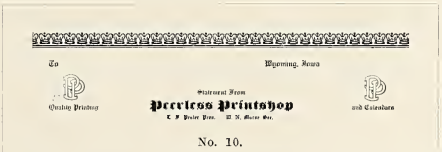
James F. Greig, Detroit, Michigan.— The borders submitted — composed of lining gothic letters and rules — are very good and exhibit considerable originality. Their practical use, however, would in most cases be prevented by the smallness of the fonts of type in the average small office.

Artistic typography, careful use of color and excellent presswork characterize the specimens from the Peerless Printshop, Wyoming, Iowa. A reproduction of a letter-head is shown (No. 9), as is also that of a unique



No. 9.

statement (No. 10). Both of the originals are in two colors, the letter-head being in black and red and the statement in black and orange.



No. 10.

Carefully arranged type-designs, good presswork and pleasing color combinations characterize the specimens submitted by the Union Bank Note Company, Kansas City, Missouri. In the automobile turntable booklet, however, the tints underneath the half-tones are far from being uniform.

A unique program was used by the Employing Bookbinders' Association of New York at their ninth annual dinner. It was gotten up in the form of a bound book, 3 by 5 inches, with deckle edges and gilt top. The printing was in two colors, and the portraits of the officials were printed from half-tones and tipped on.

The *Register-Weekly*, Union City, Michigan.— Imperfect joining of rules, poor presswork and an inharmonious color combination are all shown in the blotter submitted. Blue and red as a color combination are not pleasing, and when to this combination is added the pink stock, the appearance is especially disagreeable.

Clarence E. Mitchell, Raleigh, North Carolina.— The type matter on the cover page crowds the top and bottom rules too closely. More white space at these points would greatly improve the appearance. Use a smaller ornament and place it a trifle higher on the page. More careful attention should be given to the joining of the rules.

W. Mitchell, Wairarapa, New Zealand.— Considering the duration of your apprenticeship, the samples are well executed. However, the treatment should be more simple. Red and blue do not constitute a good color combination. In the March issue of The Inland Printer you will find the information you desire in regard to colors.

Headlight Printing Company, Morrilton, Arkansas.— The rules used are not heavy enough, nor is there enough space between them for the kind of stock you have selected for your blotter. The periods at the ends of the line should have been omitted. A little more care in spacing, especially after commas, before interrogation points, etc., would greatly improve the appearance of the work.

W. H. Towner Printing Company, Bellingham, Washington.— The rules under the feature line of the veterinary hospital letter-head should have been heavier or, better still, omitted entirely. It is not consistent to underscore a heavy black type with hair-line rules. The balance of the specimens are neatly designed typographically and, with the exception of the red and blue combinations, good in color.

The *Tribune*, Ozark, Missouri.— A more simple treatment of the letter-head would have produced better results. The band of border across the center should have been omitted, as should also the punctuation points after the display lines, those in the panel, where the items are separated by white space, being entirely unnecessary. Place the monogram and the officers' names in a panel at the right side of the letter-head.

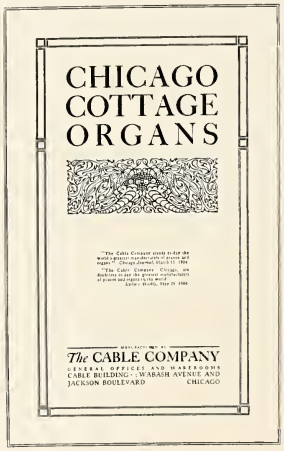
An artistic production is the house catalogue of the printing firm of Buchler & Co., Bern, Switzerland. It is a book of 250 pages, handsomely bound, and contains a history of the firm and many views of the establish-

ment, together with all the type-faces, borders, cuts, etc., at the disposal of their customers. Specimens of colorwork and design are shown throughout the book, the combinations of color being especially attractive.

An artistic specimen is the book commemorating the twenty-fifth anniversary of the house of George Borgfeldt & Co., New York. It is the product of the Chasmar-Winchell Press, New York and Pittsburg, and is quite up to the usual high standard of this firm. It is printed in three colors, the half-tones being run over tint-blocks. The type arrangement is tasty and the decorative designs are quite in harmony, making the whole a handsome piece of work.

H. E. Green, Cherokee, Kansas.— The specimens submitted show a tendency to the use of type which is entirely too large for the work to be done. Another fault is the too-frequent underscoring of lines with rules, especially when light-faced rules are placed under heavy lines. If you feel that you must underscore a line, use a rule which is heavy enough to harmonize with the face of the type. The business card and café note-head are by far the best of the specimens submitted.

An artistic little page from a booklet for The Cable Company is reproduced. It was designed by R. C. Stovel, with Sleepeck-Helman Printing Company, Chicago, and is a very creditable specimen. (No. 11.)

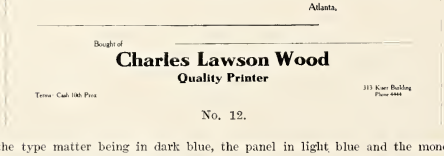


No. 11.

George Metzler, St. Louis, Missouri.— The letter-heads could both be much improved by lowering the firm name and more closely grouping the other matter. The duplicating of the name of the city is unnecessary, as is also the use of the punctuation points at the ends of display lines. The two-color specimen crowds the top of the stock too closely. The presswork on both of the specimens could be very much improved, although the stock used is too rough for half-tone printing.

Hubert M. Schmidt, Paterson, New Jersey.— The general arrangement of the blotter is good, but you have neglected to exercise the proper care as to details. In placing a rule around a page on which there are two or more columns, the distance between the rule and the type matter should not be less than that between the columns. Another error — and one that is noticeable in many of the specimens which reach this department — is the improper distribution of white space around the initial letter. The heading, as a result of the letter-spacing, is very much weaker than it should be.

Excellent type arrangements, good presswork and harmony of color characterize the specimens received from Charles Lawson Wood, Atlanta, Georgia. An attractive bill-head is reproduced. The original is in colors,



No. 12.

the type matter being in dark blue, the panel in light blue and the monogram in orange, on steel-blue stock. (No. 12.)

Blotters have been received from the following: Great Falls Stamp Works, Great Falls, Montana; Rogers & Hall Company, Chicago; The Queen City Printing Ink Company; John T. Palmer Company, Philadelphia; R. L. Polk Printing Company, Ltd., Detroit; John W. Little & Co., Pawtucket, Rhode Island; Converse Printing Company, Pittsburg, Pennsylvania; The Seagers Press, Hamilton, Ontario, unique advertising blotter, comprising a string puzzle; Stettinger Brothers, New York; Joseph Dixon Crucible Company, Jersey City, New Jersey; Irving K. Annable, Boston, Massachusetts; Griffith-Stillings Press, Boston, Massachusetts; The Henderson-Ames Company, Kalamazoo, Michigan.

Paul M. Nahmens, Milwaukee, Wisconsin.— As far as the position of the firm name is concerned there is little or no choice between the two advertisements submitted. If the time, discussion, etc., involved in the question of the position of the firm name had been spent in the consideration of how to bring into more prominence the important part of the advertisement — the Goodrich Quick Detachable Tire and Rim — the results, from the standpoint of the advertiser, would undoubtedly be greater, and with no loss in typographical appearance. The top line in itself does not apply to tires any more than it does to dozens of other articles, yet this line and the firm name are alone brought into prominence, while the article advertised is shown only by reading the paragraph.

W. H. Blossom, Hudson, Michigan.— The reading matter at the sides of the letter-head should be in a smaller size of type. As it is now, it overshadows the feature line. The color combination is not in harmony. Blue and red in their full tones can not successfully be used as a color scheme, and even though that were possible, the amount of red used is too great for a pleasing combination. While an equal amount of two complementary colors in their full tones will produce a feeling of harmony, a more pleasing effect can be gained by the use of a shade of one of the colors and a tint of the other, while a still better effect will be produced by using a small amount of one with a large amount of the other. The joining of the sections of border on the program should have been given more care. The presswork is considerably better than the composition.

TYPEFOUNDERS' SPECIMENS.

An attractive booklet is issued by The American Type Founders Company, displaying the Bulfinch Old-style and Merciontype faces — also Bulfinch borders and Bulfinch Attractors. The latter comprise a set of quaint cuts and are what their name implies — attractors. The type arrangement of the booklet is very tasty. Another publication from the same company is a comprehensive catalogue of brass rule.

A showing of Caslon Bold with corresponding italic initials and page ornaments is made by the Keystone Type Foundry in a booklet just issued. All are very handsome and faces of the most serviceable kind.

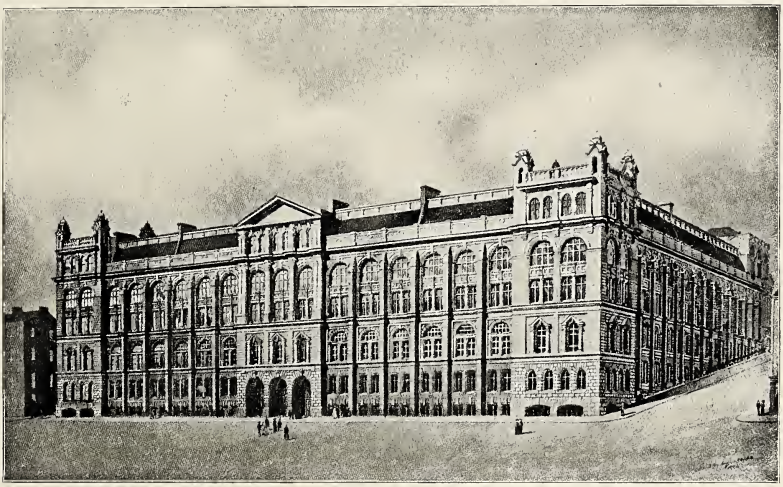
SHOULD STICK TO THE "THREE R'S."

Cleveland, Ohio, is a representative American city, and its system of public instruction may be accepted as quite up to the average. Its school authorities have, however, been led to inquire whether the schools are producing the best practical results. Inquiry among the teachers proved that they had too little time for good work in the three basic branches of instruction. Out of 1,312 teachers, only three reported satisfactory results in reading in grades five to eight, inclusive. Writing was reported as not quite so bad. The committee selected representative eighth-grade classes and gave out a memorandum of purchases of common articles, and the pupils were required to make out a receipted bill. It was thought an easy task for fifth-grade pupils, but these eighth grades averaged to misspell over twenty-five per cent of the words, thirty-three per cent failed to use the debtor's name, only eleven per cent receipted the bill, and only thirty-three per cent figured the bill correctly. This was so unsatisfactory that a simpler slip was prepared for about two hundred representative eighth-grade pupils, covering the four simple rules in arithmetic and percentage. Over one-half failed in addition, twenty-two failed in subtraction, only twenty-two were correct in multiplication and eighty-six failed in division, while over one-third failed in percentage. In a spelling contest of fifty common words, one hundred and forty-four pupils turned in papers, and only one was perfect, while in the worst only one-quarter of the words were correct. The errors averaged thirteen to a competitor. The teachers attribute this poor showing to the excessive time spent in drawing and in physical culture, and to undue preparation for holiday exercises and public exhibitions. It would be interesting to review the result of similar examinations in the public schools of New England. It is certainly true that even the average high-school graduate is not well fitted for even ordinary clerkship positions.— *New England Magazine.*

GLASGOW'S TECHNICAL COLLEGE FOR PRINTERS.

TECHNICAL education in Great Britain will receive a tremendous impetus on the completion of the Glasgow and West of Scotland Technical College at Glasgow. The massive edifice will be the largest technical college in the United Kingdom and embrace in its curriculum a complete department in the printing and allied trades.

The first session of these most successful classes has drawn to a close. The course of instruction in typography included lectures and practical classwork. These have been the means of stimulating the printers of this most progressive city of Glasgow to keep abreast of the times in all that pertains to a fuller knowledge of their craft. The students of both the practical classes, the case department and the machine department, have been required to attend the lecture course, which deals with the work of these classes and which is supplementary to the practical classwork. No division of work is recognized, the students therefore being enabled to get an all-round training in the various branches of their work.



GLASGOW AND WEST OF SCOTLAND TECHNICAL COLLEGE BUILDINGS, NOW IN COURSE OF ERECTION.

The lecture course consisted of twenty-five lectures, sixteen being delivered by the class lecturer (Malcolm Macfarland) and nine given by prominent members of the trade in the city of Glasgow. The lecture class consisted of about one hundred and fifty members and the interest was kept up to the end. The "open" lectures by prominent craftsmen were well attended and were thrown open to all members of the trade free. The lectures were illustrated by lantern and blackboard work. An examination was held at the close of the session in "theory."

In practical casework there are twenty-one students — taking three nights each week — and each student is required to attend two nights weekly. The average attendance was ten. The instruction given is principally in display work, examples of the best work being shown and explained to the students, and these include THE INLAND PRINTER specimens. The type, borders, rules, etc., are all on the American point basis. The equipment is of an extensive nature, making a medium-sized, up-to-date caseroom with all modern material.

Two competitions were held at the close of the session, and eighteen competed, five prizes being awarded.

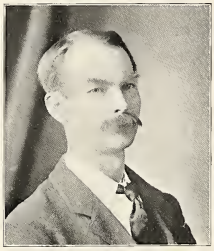
The instructor of the case department is Edwin Morley, a progressive disciple of Caxton. The machine department is under the guidance of James Courtney. It has a roll of fifteen, one-third of which are journeymen and two-thirds apprentices.

The work of the class began with a thorough explanation as to the details and working parts of the machines at the disposal of the class, which comprise a demy machine (cylinder), by Payne, of Otley, England, fitted with all the latest improvements and driven by electric motor; a platen machine of the latest make; a Columbian press, a gift of W. John Anderson, of the firm of Robert Anderson, Glasgow. The work for this class was partly supplied by material from the case department, and also by blocks, etc., supplied by some well-known firms in the city of Glasgow, which gave scope for overlay-cutting, for wood engravings and process blocks (square and vignette), also single, double and tri-color work. The work of the session also comprised the printing of the work of the case students, and a competition for overlay-cutting, make-ready and printing a dozen copies of same. The interest of the members of this class was fully maintained, with a fine average of attendance.

These classes are all equipped with the latest materials and machines and the printer-students of the city of Glasgow have a grand opportunity to forge ahead in the production of all that is best in art printing. The classes in each instance are under the control of capable and enthusiastic teachers, who have the welfare of the students at heart and who are adepts at their particular work.

The following is the course of special lectures arranged for the classes in typography at the Glasgow Technical College (session 1904-5): "Recent Labor-saving Appliances in Letterpress Printing"; "Typefounding and Type"; "Manufacture of Paper, Weights and Sizes of

Paper, Equivalent Weights, Qualities and Makes of Paper, Etc."; "Casting of MSS. for Bookwork, Measures, Proportionate Faces, Bookwork Problems, Etc."; "Composition Jobwork"; "Chases and Furniture, Locking and Unlocking, Springing Remedies, Care of Machine and Wash-up"; "Modern Display Work in Typography"; "Composition, Book and Pamphlet Work"; "Mechanical Composition"; "Imposition, Sheet and Half-sheet Work, and Various Schemes"; "Stereotype and Electrotype Work, Systems of Mounting Plates, Etc."; "Design and Type Arrangement"; "The Wharfedale and Modern Printing Machinery"; "Making Ready, Press, Platen and Cylinder Machines, Cutting Overlays, and Treatment of Half-tone Work, Etc."; "Title-pages and Pamphlet Cover Work, Etc."; "The Two-revolution Printing Machine — the Engineer, the Printer"; "Rollers — Composition-casting, Working Condition, Care of Rollers, Etc."; "Electrometallurgy, Etc., as Applied to the Printing Trade"; "Modern Advertisement — Display Work"; "Processwork (Line, Half-tone and Three-color Blocks)"; "Printing-inks — the Manufacture and Care of Inks"; "Half-tone Blocks and Three-color Printing"; "Composition for Colorwork"; "Harmony of Colors, Relative Value of Colors and Shades, Admixture of Colors, Tintwork, Etc."



EDWIN MORLEY, INSTRUCTOR CASEWORK.



MALCOLM MACFARLANE, CLASS LECTURER.



MR. COURTNEY, INSTRUCTOR PRESSWORK.

BOOKBINDING LEATHERS.

About twelve months ago there appeared in the press an article on the subject of "Bookbindings that Perish," and the revelations then made as to the destructive effects of the acids used in the manufacturing processes caused considerable perturbation among both bookbuyers and booksellers. During the year 1900 the Council of the Society of Arts, at the request of a provisional committee of persons interested in the production of durable leathers for bookbinding, appointed a committee to inquire into and report on the durability of the leathers now used for the purpose. Their report, which was published by the society in the following year, attracted much attention, and practically the result has been that a large number of librarians and others have required of their bookbinders that leather should be used which will fulfil the conditions laid down by the committee. An enlarged and revised edition of this report has now been issued. It contains instructions for the preparation and testing of leather, and gives also illustrations of the actual effects of light, heat, gas fumes and other injurious agencies. It is pointed out that the leather now used for bookbinding is less durable than that employed fifty years ago. Great stress is laid on the injurious effects of sulphuric acid, which appears to be universally employed as a "brightening" agent or in the dye bath. The committee are opposed strongly to its use and express a hope that some substitute, such as formic acid, may be found. They consider that the conditions under which books are best preserved are fairly well understood, except that the injurious effect of light on leather has not hitherto been appreciated. They are satisfied that gas fumes are the most injurious of all the influences to which books are subjected. Under proper conditions of ventilation, temperature and dryness books may, it is stated, be preserved without deterioration for very long periods on open shelves. As a general rule, tightly fitting glass cases conduce to their preservation. Though the committee have arrived at the conclusion that it is possible to test any leather in such a way as to guarantee its suitability for binding, they have not been able to satisfy themselves that it would be either possible or desirable to establish any formal or official standard.— *Printers' Register.*

GEORGE ADE ON THE ENGLISH LANGUAGE.

It seems that in my efforts to enrich the English language I made it too rich, and the result was mental gastritis. In one of my fables, written in pure and undefiled Chicago, reference was made to that kind of a table d'hote restaurant which serves an Italian dinner for 60 cents. This restaurant was called a "spaghetti joint." Mr. Lang declared that the appellation was altogether preposterous, as it is a well-known fact that spaghetti has no joints, being invertebrate and quite devoid of osseous tissue, the same as a caterpillar. Also he thought that "cinch" was merely a misspelling of "sink," something to do with a kitchen. Now, if an American reeking with the sweet vernacular of his native land can not make himself understood by one who is familiar with all the ins and outs of our language, what chance has he with the ordinary Londoner, who gets his vocabulary from reading the advertisements carried by sandwich men?

This pitiful fact comes home to every American when he arrives in London — there are two languages, the English and the American. One is correct; the other is incorrect. One is a pure and limpid stream; the other is a stagnant pool, swarming with bacilli. In front of a shop in Paris is a sign: "English spoken — American understood." This sign is just as misleading as every other sign in Paris. If our English can not be understood right here in England, what chance have we among strangers?— *George Ade, in the Chicago Tribune.*

MONEY IN THE POCKET.

Your claim as to the invaluableness of your journal to the trade is not in the least exaggerated. An article in your last number has been the means of saving me many dollars in future work, notwithstanding my wide experience in the printing business.— *George H. Wheeler, Toronto, Canada.*



THE TACONY AMONG THE FISHERMEN ON GEORGES

Plate Used by Courtesy of
The Rudder Publishing Company
New York

Printed with One Impression
Schrodine Art-Tone Ink
Platinum Black A. C. 43
Manufactured only by
Schroeder Ink & Color Company
New York

Written for THE INLAND PRINTER.

SLUG 6 HITS THE ROAD.

BY LEON IVAN.



HE other day, when the trouble began between the teapot and the 16 Upes, I was left high and dry — very dry — so I thought I'd hit a side-door sleeper for a better clime. I got as far as a water tank before the breakie cut me out and left me on the dump with the dead matter. I made the next take afoot and panhandled the gang; at the same time I got a line on a job a little further up the track where there was a little one-horse sheet in distress. I started out and landed Tuesday afternoon in front of a measly little print-shop. On skirmishing around, I learned that Nat Brown owned the outfit and that he was an old curmudgeon, as hard as nails, and as keen a politician as could be found in seven States, but knew absolutely nothing about the printing business. His son, who had been manager of the shop, had just got into a row with the old man and pulled his freight, taking with him the two-nick compositor — who was their best man — because the main guy kicked when they talked about getting married. The old pirate fired another of his men because he said he could not see how they were going to get along, and the sole force on deck was the pressman and a couple of cubs.

"That looked encouraging, so I hit Nat for a job, telling him that I had had all kinds of experience as superintendent, foreman and all-round hustler in some of the biggest shops in Chi. Nat put up a good bluff that he wasn't sure he could use an extra man just then, unless he was a good pacer. And as to wages —

"I needed the money, so I told him I'd start right in and he could give me what he thought I was worth. Nat 'most fell dead when I put that prop. to him, because he had been in the habit of haggling over the terms for an hour or two before he hired any one. The paper — The *Muckbridge Marvel* — was an 8-col. folio, and under ordinary circs. the first side usually went to press Tuesday afternoon; but this week there wasn't a line up and everything was in a state of chaos or worse.

"I started to throw in a case of eight-point, but as customers kept coming in, Nat thought I had better get some jobwork out of the way first, while he would scatter around and see what could be picked up in the way of copy for the paper, as he had quite overlooked the necessity of getting any out.

"I couldn't see how we were going to pull out with the force on hand, so as soon as I got the jobbers running and could find time for a breathing spell, I went to the 'phone and called up the daily at the county seat, where they had a battery of Mergs., and found they could handle fifty or sixty thousand ems for us by Friday morning if they got the copy right away, and would give us good figures to get the contract for our straight matter every week.

"I pulled the cubs off the dis. and got them helping on the ads. and jobwork in spots where they could do most good, till Nat showed up just before quitting time and wanted to know how many thousand we had up toward the first side of the paper.

"Nixey; not a stamp, I told him.

"Then he was wild and he was worse when I told him that it was useless for us to try and set up the paper that week.

"'Now, Slug 6, what do you mean?' he howled, 'the *Marvel* must come out rain or shine or I shall be ruined.'

"'The paper will come out all right, if you'll listen to reason,' I told him.

"'I don't see how, if you don't get a hustle on you, Slug 6.'

"'The *County Clarion* can set up our straight matter on the machine for thirty-five cents — and you can't do it for less — and will get it out for us by train Friday morning, if you'll dig up the copy. That will leave us only the ads. and a few late locals to take care of.'

"'What do you take me for, Slug 6? Have my copy mauled over by them Democrats on the *Clarion* and sent out here ahead of the *Marvel*. They steal all the best things in our paper now and never give us a line of credit.'

"'Mr. Brown,' says I, 'there's just as white men in the country as yourself and they'd no more think of taking your copy than you'd think of taking their money.'

"'I ain't so sure of that.'

"'Well, I am, because I know how it goes. Your copy won't go into their editorial rooms at all. If they want to use any of your copy, they'll ask for it and give you a good send-off into the bargain. Think how it would read for the *Clarion* to come out Thursday with "speaking of the Republican meeting at Muckbridge, the *Marvel* of to-morrow will say," etc. Why, they would give a few of the best sentences in the article and everybody in town will be crazy to read the rest. It would be the biggest boost for the *Marvel* that you could get. Besides, it's our only hope of getting the paper out.'

"To cut it short, Nat used all the dashes in the case and turned for more, but finally compromised by agreeing to let the *Clarion* set the news if we'd set the editorials at home.

"I agreed to that, and when the old man began to see his way out of the trouble, he looked so amiable that I touched him over the small cap. G box and got one.

"I shipped the copy on the train to the care of the station agent, and phoned the *Clarion* to send a boy down to get it. Every train that went carried a bunch of MS., and Friday morning we got the metal back — heads, dashes and everything. As we had the forms all ready, it did not take long to shove in the stuff and get to press. I hired a couple of husky 'bo's for motors and the cubs and myself got as much of the inside fixed up as we could. When the first side was off, we had to pull sorts for the display lines in the ads. and such like, but we soon had the inside straightened out. It had always been the practice in that shop to put the forms on the press and run out copies for the mail at distant offices; in the meanwhile, Nat and the whole push would be rubbering over the sheet to spot what blunders they could and then correct them before printing the town edition.

"I didn't like the idea of crawling into that press and spending a couple of hours correcting, so I got a piece of cloth to make a proof planer and pounded out a page proof. This staggered the old man, and I had a hard job to get him to look at it, as he was afraid something might happen after the form was locked. I told him that if he would go over it very carefully, he might have another whack at it after it was on the press. We had to set a few lines, because of bum names, but, taking it altogether, we did very well, and instead of rushing our heads off and being late with the sheet, we were actually taking it easy and getting out ahead of time.

"When we had everything mailed and delivered, the old horse-thief became quite confidential and began telling me his business troubles.

"'The proceedings of the town board,' he says, 'which ought to be our best picking, has to be printed for next to nothing, because the *Clarion* always bids so low on it that the *Marvel* has to do it for almost nothing to get it at all.'

"That set me thinking, and I said that I might be able to fix it up for him.

"'Slug 6,' he says, 'you've pulled me out of an awful hole, and if you can do anything with them you're a wonder. And, by the way, you left your wages to me. I let a $15, a $12 and a $10 man go — that's $37 per. Our bill for composition this week was $21 — cutting out the metal — and we set more than usual, too, and got it all in. That leaves $16 to the good. How will a full week at $15 per suit you for a starter, and you can stay here right along?'

"That looked good to me, so I told him that if he'd shove his copy in through a pigeonhole and keep out of the office, I would give it a whirl.

"Saturday morning I called up the manager of the *Clarion* and told him that I had a proposition to make; he could have all the composition of the *Marvel*, the proceedings of the town board and some bookwork if he wouldn't bid against us in our own town. The *Marvel* had to publish those proceedings if they had to do it for nothing, so his bid would be wasted anyway, while, on the other hand, there was a chance for both to make something out of it if he'd do the square thing.

"'Well, Slug 6, says he; 'I don't mind telling you on the q.t. that we've been bidding against Nat Brown because he bids against us on the county work that he has no more show of getting than a rabbit; if you'll choke him off that habit, I'll call it a deal.

"'Slug 6,' said Nat when I broached the subject to him, 'you're a trump. I've always been afraid I might get that county work, but I didn't want to show the white feather and have them *Clarion* people crowing over it.'

"'Then, you'd better run down with the first batch of copy Monday morning and talk it over.'

"'Oh, I wouldn't be seen going into that office for a farm out west. It would ruin my reputation with the party.'

"'Then get hold of the receiver,' said I, 'and clinch the bargain right now.'

"Nat came to scratch like a little man and soon had the contract signed, sealed and delivered, or as near as could be, over the wire. The *Clarion* manager was so pleased with the turn things had taken he told Nat that every week he would throw in a couple of columns of county clippings free of charge that he'd save out of his own paper for us, if we would send him a marked copy showing what we wanted each day, instead of us clipping them out and sending them back to be reset. Altogether these two old fire-eaters got quite friendly before they let go the wire.

"Having nothing but the jobwork and ads. to set, my principal trouble was to get the boss to write copy on time. That man would get hold a three-line local Friday evening and carry it around all the week if I'd let him, but I used to make him turn out his pockets every time he came into the shop and write out everything he knew, or else tell me the story and let me do it up.

"The old sinner hated church meetings like poison, though he would sit it out like a saint on Sundays, but week days — were different. Hence his son had been in the habit of reporting these doings. I was hardly well dressed enough to represent the *Marvel* with dignity, but after I had bought a new hat and a decent pair of shoes, Nat gave me one of his overcoats so I could put up a decent front and paid me overtime for doing that class of work for him. In a couple of weeks I got on such good terms with the old man that he told me that he had a big advertising bill against one of the storekeepers, and, if I wished, to get a suit of clothes and have it charged to him, paying for it as I could spare the coin.

"Say, that was like finding money, as I was beginning to get acquainted and was somewhat ashamed of my personal appearance. It turned out, however, I was getting too well acquainted, for one Saturday night I was introduced to Mr. Jack Pots, with disastrous results; the next weekly session was worse, and as my boarding boss was hinting about the color of my money, instead of going home that night, I hit the first freight train that came through and was miles away by morning."

QUEER NEWSPAPERS.

In the 1875 Arctic Expedition one of the chaplains had a file of the *Times* twenty years old, containing the Crimean War reports. One copy was given out to each ship daily; the officers had it first, then it went to the fo'c's'le, and soon every one was as keen about the news as if the war had been proceeding. The clergyman in control of the press was besought to issue an evening edition, and when Sebastopol was about to be taken, excitement ran so high that the newspaper office (a locker) was almost stormed. The editor, however, was firm, and continued with his daily issue, the interest being kept up to the end of the expedition. *The Shroud* is the suggestive title of an American journal devoted to the undertakers' calling. The special columns are embellished with a sketch of two gentlemen seated on coffins smoking cigarettes. There is a humorous paper in America which finds its comic "copy" in fatal accidents and funeral rites. It tries to make death look funny, and that is surely funny enough for any one. Every one knows that in the United States there are towns with extraordinary names, one of which is Tombstone. A resident of this cheerfully named place, who rejoiced in the name of Coffin, thought the coincidence might mean money by publishing a journal called *The Epitaph*. He had a publisher named Sexton, and made a feature of the free insertion of death announcements! There is said to have been a St. Petersburg editor who was alive to the fact that nothing pays like advertising. He hit upon the happy idea of printing his journal on paper suitable for making cigarettes. Russians being much addicted to smoking own-made cigarettes, it is not surprising that this newspaper's circulation went up by leaps and bounds. This journal always ended in smoke, but other papers equally eccentric have had a less ignominious fate. Greenland boasts the luxury of a newspaper which has the most long-winded title in existence, *Arrangagliotio Natinginnavnik Sysarammas Sivik*. We wonder what the London newsboy would make of this; something short and sweet, undoubtedly. Mount Washington, the highest peak in New Zealand, has, or had, a newspaper produced at its very top. An enterprising printer, whose pluck ought to make him "get on," from this exalted altitude issued a journal aptly named *Among the Clouds*.

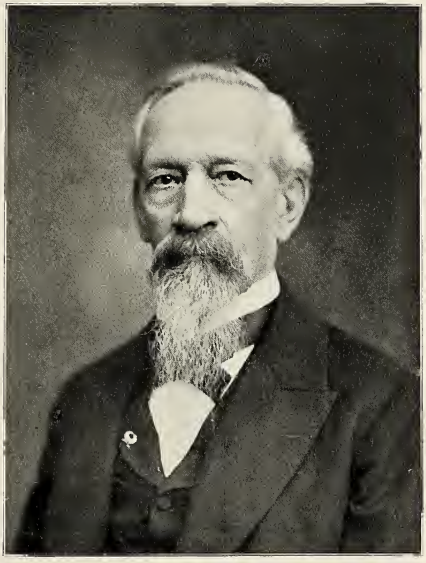
Norway can boast of the northernmost paper in the world. This is the *Nord Kap*, brought out weekly at Hammerfest. It obtains its news by a ship which calls once every eight days. When items arrive on publishing day they stand over till the next issue, so that the journal's latest news is often fourteen days behind the rest of the globe. A newspaper used to appear at Deccan printed on white cotton, which was used as a pocket handkerchief. Then it was washed, and the publisher lithographed on the same sheet time after time, until it was lost. Probably much the smallest sized paper in the world is a Mexican weekly, the *Telegram*. It is composed of four pages of printed matter, arranged in three columns five inches long and two inches wide. In this limited space is contained the world's news, boiled, or rather stewed, down. This curiosity of journalism has adopted for its motto: *Little Straw and Much Wheat.— T. P.'s Weekly.*

OBITUARY

THE officers and directors of the M. D. Knowlton Company, Rochester, New York, announce the death of its president, Mr. Mark Dean Knowlton, Friday, March 2, 1906, at Boston.

EDWIN DU LAURANS.

In the death of Edwin du Laurans, which occurred at the Powers hotel, Rochester, New York, February 4, last, the Jaenecke Printing Ink Company, of Newark, New Jersey, has suffered a great affliction and the loss of a wise counselor and valued friend. His death brings a very deep sorrow and a personal bereavement to the directors, officers and employees of that company. The immediate cause of his death was an internal disorder which, owing to the



EDWIN DU LAURANS.

weight of his years and feeble condition, he was not able to combat. Mr. du Laurans, or as he will be better remembered by the craft, "Colonel" du Laurans, was very dear to those who knew him, and it is not assuming too much to say that he had more friends among the printers and allied industries than any other man. Born in Poland, of French nobility stock, in the year 1825, he figured conspicuously in after years in French diplomatic circles, being at one time Ambassador to Denmark. He also served with distinction in the French Army, participating in the Crimean War, and rose rapidly to the rank of colonel. He was wounded in the battle of Sevastopol.

He made his first visit to this country in the sixties, as bearer of dispatches to the United States, and later swore allegiance to the Constitution and became a citizen. Soon after, he embarked in the manufacture of printing inks, which industry was then practically in its infancy and little known. It is said that he made a fortune traveling about the country selling his products, but in the crash of 1873 he lost it all.

By his genial good nature, generosity and the fine type of manhood he represented, he made for himself a host of admiring friends wherever he went. The last fifteen years of his life were spent with the Jaenecke Printing Ink Company, and when about two years ago, in recognition of his long years of faithful service and experience, they made him a director and power in the management of the affairs of their business, it was met with such a popular expression of approval among his friends that the intention of the company to take him from the road had to be abandoned and he resumed his travels.

He was a man of exceptional tact and ability, generous to a fault, and possessed a peculiar faculty for making friends everywhere. He was conspicuously a friend of the printer, and was quick to discern in a man whether he was imbued with those qualities of heart and mind which appealed to the high principles and the type of manhood which he himself represented and exemplified in his life.

It is hard to realize that he is gone from among us and that we shall never see his kindly face again, but it is a great satisfaction and consolation to know that he died peacefully and quietly — just as he had lived.

SPACE CLUB MEETING.

At the regular monthly meeting of The Space Club, of Chicago, held at the Hamilton Club, March 5, there were present thirty-one members and guests. Applications for active membership were three in number, as follows: Mr. J. Munroe Heilbrun, *Scientific American;* Mr. William A. Radford, *Carpenter and Builder*, and A. G. Frost, *Engineering World.* The club enjoyed a most pleasant evening in listening to addresses by the following gentlemen: Mr. Daniel C. Shelley, of the American Type Founders Company, who spoke on "New Type and Display Advertising in the Technical and Trade Press." Mr. Shelley illustrated his talk by showing specimens of the latest advertising type manufactured by his company. He also criticised the display advertising in the papers represented by members of The Space Club. Mr. E. St. Elmo Lewis, Advertising Manager of the Burroughs Adding Machine Company and the Trussed Concrete Steel Company, of Detroit, spoke on the "Preparation of Suitable Advertising Copy for the Technical Press," and dealt on the subjects of circulation and general advertising value of the technical press. Mr. Paul Hull, Superintendent of Second-class Mail Matter at the Chicago Postoffice, spoke on the "Second-class Privileges of the United States Postoffice." He told of the uses and abuses of the second-class privilege by publishers of technical and trade papers throughout the country. His address was a most interesting one. He told several stories of real life, which were heartily applauded.

AS IT WAS IN THE BEGINNING.

A clever college girl who had just finished reading Walt Whitman's "Leaves of Grass," was asked as to her opinion of the work.

"Well," she answered, "I should like it a great deal better if a few fig leaves were mixed in with the leaves of grass."—*Lippincott's.*

PRINTER'S ADVERTISING

THE February number of "Crocker Quality," the house organ published by H. S. Crocker Company, San Francisco, California, is quite in keeping with the usual high standard. It is carefully arranged, well printed and the arguments presented in a convincing manner.

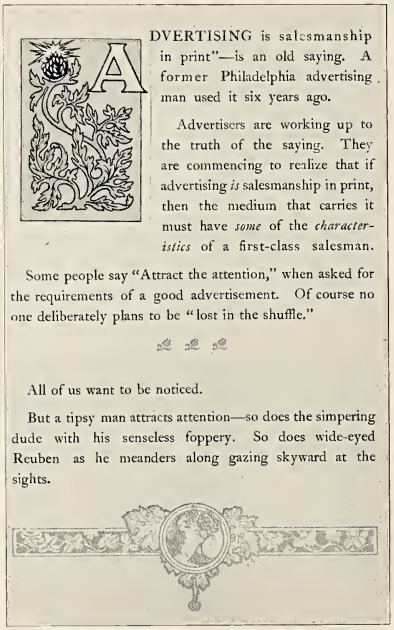
AN exceptionally artistic booklet is at hand from Corday & Gross, "Anti-Waste-Basket Printers," Cleveland, Ohio. The stock used is Strathmore Japan, the panel and



heading on the first page being embossed in gold, and the half-tone tipped on. The inside pages are printed in handsome shades of orange-brown and grayish blue, with the initial — which is also tipped on — in bright green and gold. The whole forms a most handsome booklet. Reproductions of two of the pages are shown.

"THE DOCUMENTS IN THE CASE" is the title of an interesting and novel specimen of advertising literature from The Williamson-Haffner Engraving Company, Denver, Colorado. It is a pamphlet of twelve pages and cover, and on the pages, in their proper order, are tipped facsimiles of the telegrams, letters, blue-print, sketch and proofs pertaining to a mail order for a half-tone. It is an exceptionally interesting piece of advertising.

IN "The Quarter Year, a Little Magazine About Printing," issued by the William Johnston Printing Company, Chicago, the subject of solicitation and salesmanship is covered in the following: "There are two kinds — the man and printed matter. The man is human, and flesh is weak. Your printed matter is your ambassador. It tells your own story — makes no exaggeration — no impossible promises — goes just where you send it, and waits for the man you wish to talk to and then says your say. Of course there is



ADVERTISING is salesmanship in print"—is an old saying. A former Philadelphia advertising man used it six years ago.

Advertisers are working up to the truth of the saying. They are commencing to realize that if advertising *is* salesmanship in print, then the medium that carries it must have *some* of the *characteristics* of a first-class salesman.

Some people say "Attract the attention," when asked for the requirements of a good advertisement. Of course no one deliberately plans to be "lost in the shuffle."

All of us want to be noticed.

But a tipsy man attracts attention—so does the simpering dude with his senseless foppery. So does wide-eyed Reuben as he meanders along gazing skyward at the sights.

printing and printing — some that is fed into the hopper and comes out commonplace and mean, some that shows individuality — that's the kind — copy carefully considered, type tastefully arranged, suitable cuts, paper, presswork and binding — then you have a most complete argument."

AN interesting house organ is "McMullen's Blotter," issued "from time to time as convenient" by the McMullen Printing Company, Cheboygan, Michigan. It is neatly arranged, carefully printed and contains much that is of



interest to advertisers. Among other good things in the current issue is the following: "Poor printing never built up a great business. Some, perhaps, have succeeded in spite of slipshod advertising, but not many. It is a duty you owe your business to see that every piece of advertising

you send out is worthy of your business standing. Yourself and your stock are oftentimes sized up by your printing." A reproduction is shown of another unique advertising device used by this firm. It consists of a leaflet — which is placed in each package of printed matter sent out — thanking the customer for the order and soliciting a continuance of the patronage. An appropriate sentiment is expressed in the lines, "If this work pleases you, tell others; if not, tell us."

"The Sign of a Good Print Shop," the house organ of The Marsh-Baker Company, Fredonia, New York, is an interesting booklet, neat in design and well printed on deckle-edge stock. The text is well written and is a convincing argument in favor of the products of this firm.

A portfolio from C. J. Peters & Son Company, Boston, Massachusetts, contains proofs of half-tones made by that company. The reproductions are exceptionally good — both as to engraving and presswork.

The following is from a booklet which accompanies a unique portfolio issued by The Fuchs & Lang Company: "We have recently received from Germany some new and

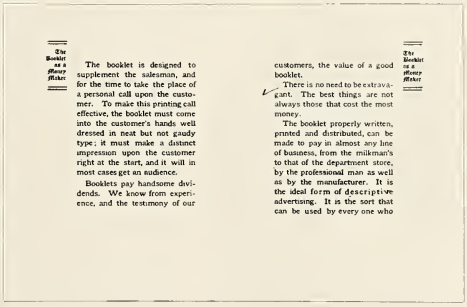


very choice decorative designs — too good to keep. We have decided to reproduce about sixty of the finest specimens and send them to our customers and a few whom we hope to make customers of. These designs can be adapted in the decoration of all manner of printed things, such as catalogues, books, magazines, posters, show cards, book plates, calendars, etc. The portfolio which accompanies this book is intended as a cover for the art designs which we will send you as fast as completed." The booklet and portfolio are exceptionally well designed and printed, and the first of the specimens — which accompanies the portfolio — is an indication that the whole will be a valuable and lasting advertisement for the products of this firm. The booklet cover is embossed in gold and is a beautiful piece of work. A reproduction of the portfolio and booklet is shown.

A calendar issued by the F. T. Peterson Company, Chicago, is artistic in design, harmonious in color and well printed. A reproduction is shown. The original is in blue, orange and black on white stock, the whole being mounted on a black matt board.



"The Booklet as a Money Maker" is the theme of a handsome booklet from The Bishop Press, Kansas City, Missouri. It is a convincing argument in favor of the use of this form of advertisement and an excellent example for


The Booklet as a Money Maker

The booklet is designed to supplement the salesman, and for the time to take the place of a personal call upon the customer. To make this printing call effective, the booklet must come into the customer's hands well dressed in neat but not gaudy type; it must make a distinct impression upon the customer right at the start, and it will in most cases get an audience.

Booklets pay handsome dividends. We know from experience, and the testimony of our customers, the value of a good booklet.

There is no need to be extravagant. The best things are not always those that cost the most money.

The booklet properly written, printed and distributed, can be made to pay in almost any line of business, from the milkman's to that of the department store, by the professional man as well as by the manufacturer. It is the ideal form of descriptive advertising. It is the sort that can be used by every one who

The Booklet as a Money Maker

the illustration of the argument. A reproduction of two of the pages is shown. The side headings and check mark are in red; balance in a beautiful gray.

FOREMOST IN ITS CLASS.

I take advantage of this opportunity to add my testimony to that of the thousands of printers who have profited by a study of The Inland Printer, and congratulate you on the wonderful success you have achieved in making it the foremost journal of its class in the world.— *Charles W. Rogers, Printing Department, Paris Medicine Company, St. Louis, Missouri.*

TRADE NOTES

THE Smiley Automatic Printing Press Company is a new concern at Warren, Ohio.

THE Mentges Folder Company, Sidney, Ohio, have completed their new factory building.

THE printing plant of The Tuttle Company, Rutland, Vermont, was entirely destroyed by fire on the morning of February 18.

THE Chandler & Price Company, Cleveland, are planning an extensive addition to their great factory, to take care of the insatiable demand of printers for C. & P. products.

HAVING severed his connection with the A. D. Farmer & Son Typefounding Company, Mr. Clarence W. Dickinson has accepted the management of the Chicago branch of the Inland Type Foundry.

THE Stehr Book Bindery, which has been operated in Canton for the past eighteen years, has been bought by the Roller Printing & Paper Company, of that city. Additional machinery and equipment will be added, making a complete bindery plant for the manufacture of blank books.

THE McConnell Printing Company, New York city, has been incorporated, with a capital of $30,000. Mr. George E. McConnell, lately manager of the Mail and Express Job Print, 15 Murray street, New York, is the president of the new concern, which is putting in a new and up-to-date plant in the building formerly occupied by the *Iron Age*, at 230-238 William street, New York city. The McConnell Company will be ready for business on April 1.

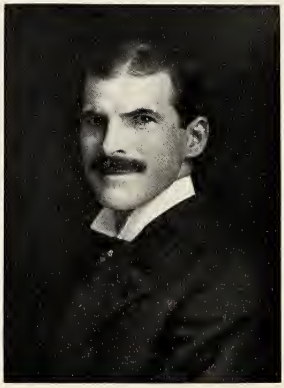
THE H. C. Hansen Type Foundry has moved its New York branch to new quarters at the premises on the corner of Elm and Center streets, one of the finest locations for a business of this character in New York. The Hansen Type Foundry's New York branch was established in October, 1904, in the Vanderbilt building, in a tentative way, with desk-room only. The business grew, and a few months later a home was found at 12-14 Spruce street, where a limited stock of type and printing material was stored. The business developed rapidly and a further move to larger quarters was necessary, resulting in the business becoming established in the building above noted. Much of the success of the New York branch is due to the energy of its manager, Mr. Otto Zimmer, whose portrait appears with this note.



OTTO ZIMMER.

THE value of a good organization is often strikingly proved by unexpected emergencies. On the evening of January 17 last, fire totally destroyed the plant of the Richmond Type and Electrotype Foundry, of Richmond, Virginia. C. P. Davis, treasurer of the company, after looking over the field, gave the F. Wesel Manufacturing Company, Brooklyn, an order for a new equipment, on Saturday, February 3, at 6:30 in the evening, the specifications calling for individual electric motors on each machine, and on Monday noon following the first delivery was made at New York, with deliveries on each day following until on February 10 the entire equipment was on the way. Thus a large and complete electrotyping plant was sent in six days, every machine equipped to place on the floor and connect with the line wires.

AMONG changes of interest in the printing and box-making world is that of Mr. John Murray, of New York city, to Chicago. Mr. Murray goes West to represent the John Thomson Press Company as salesman for their Colt's Armory printing-presses, replacing Mr. C. W. Smith, who returns to the Eastern field. Eighteen years of experience have already made Mr. Murray a popular and widely known man, and his hosts of friends expect his future career to duplicate the success of his past. Mr. Murray began his work in 1888, when he was in charge of the Winthrop Press, in New York city, remaining there until 1892. In that year a more important position was offered him, that of instructor of printing in St. Joseph's Institute, Westchester, New York. Here he was instructor in printing to deaf-mutes for ten years, and his success is attested by hundreds of his pupils now holding good positions. Leaving St. Joseph's, he went with the Schleuter Printing Company, of New York, taking charge of their presswork, and after a year in their employ, became a salesman of the Colt's Armory presses for the John Thomson Press Company, first traveling through the Eastern field and then locating in New York city. As a practical printer himself, Mr. Murray has an advantage over many press salesmen in being able to speak with knowledge in all the details of printing, embossing, cutting and scoring, a fact which has greatly aided him in his success. Mr. Murray will have charge of the established headquarters of the John Thomson Press Co., at 1701 Fisher building, Chicago, whence he will set forth the superior merits of the Colt's Armory presses throughout the Western territory.



MR. JOHN MURRAY.

BE A WORKMAN — NOT A TIN HORN.

The young pressman can not make both ends meet if he continues to play the races and continually talks baseball. One exhausts your purse and the other your wind.—*American Pressman.*

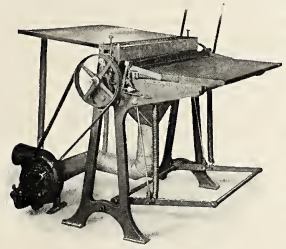
BUSINESS NOTICES

This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

THE Lester Manufacturing Company, Alameda, California, announce "Macauley's Extension Gripper," a device which will be welcome to platen pressmen. It does away with the use of string and rubber bands, and will prevent slurring and sheets sticking to form. It does not interfere in any way with bearers or roller tracks. At the moderate price at which it is sold no printer can afford to do without it. Particulars will be sent on request.

MUCH difficulty has been encountered by pressmen in securing satisfactory paper for the top sheet of their make-ready. Realizing this, the Maurice O'Meara Company, 448 Pearl street, New York city, has perfected and is manufacturing a top sheet which will meet every requirement, and insure a sharp, clean, clear impression of the most intricate job. It is exceptionally strong, hard, of uniform texture and surface, and is unaffected by moisture. Give it a trial.

A MACHINE for making deckle edges on paper is one of the latest inventions to meet the demands of the printer. The Dunning Deckle-edging Machine, a cut of which is shown herewith, is about the size of a perforating machine and is operated in much the same manner. The principal claim for the machine is that it will put the deckle edges on work after printing, and by this means opens up the whole range of the paper market to artistic treatment. Dunning Brothers, incorporated, who own and control the patent rights in this country and abroad, have been doing work for the trade at 133 William street, New York, but having proved the success of their device, are now entering more seriously into its exploitation, their plan being to furnish a limited number of machines in certain territories on a royalty basis. Correspondence is solicited from printers and others in cities not equipped for this work.



DUNNING DECKLE-EDGE MACHINE.

BRONSON'S Printers Machinery, 54 North Clinton street, Chicago, advertise a comprehensive line of rebuilt presses on another page of this issue. This concern has a fully equipped machine shop, where every press is thoroughly overhauled and put in first-class condition before it is placed on the market, and purchasers are assured of getting a machine which will do as good work as when it left the hands of the original builder. The stock is constantly changing, and if you do not see what you want listed in the advertisement, write to Bronson.

THE advertising matter of the Star Engravers' Supply Company, 81 and 83 Fulton street, New York city, is generally different from the ordinary run of such things. We



reproduce their latest effort, "We're Wide Awake While Others Sleep."

THE IMPROVED PEERLESS PERFORATOR.

The advertisement of the Improved Peerless Perforator, manufactured by A. G. Burton's Son, 42-48 South Clinton street, Chicago, on another page of this issue, deserves attention, for the Peerless is well named and is generally conceded to be the best perforator on earth. It is used by the most successful printers and binders of every land where printing is done in large quantities. Uncle Sam's plants are all equipped with the Peerless, his Bureau of Engraving and Printing in Washington using forty of these machines on stamp work. Every part of the Peerless is produced in the Burton factory; the gearing is cut at home by men trained in the work. Gauges are made to secure accuracy in adjustment and simplicity in handling, and are so arranged as to be easily changed from point to point; also to compensate for any irregularity in the cutting or printing of the paper. Striking cams are of steel, and by means of a set-screw and graduated disk can be quickly adjusted for skipping any distance. Table and lay-boy are of seasoned whitewood, handsomely finished and space-saving. Both are attached to and supported entirely by the frame of the machine. The cutters and dies are the vital parts and are made of the finest Crescent steel, every pound of which is made for this work. The proper milling of these cutters would be difficult outside the Burton plant, and the tempering impossible, as it is accomplished by a secret process. Upon it depends the beauty of the perforation and the durability of the cutter. Extra cutters and dies are furnished with each machine and duplicates are always kept in stock. The Peerless is furnished in two styles, Nos. 1 and 2. The latter is preferable because it handles the wider range of work. The character of the perforation is distinctive and a revelation to one who has seen only the old round-hole or cut-rule perforation. No other machine cuts and removes the particles so the binder need not handle the paper again to clean it for binding. No other machine makes a perforation that does not present difficulties in tearing. There is no other machine that does not leave enough paper and burr to be noticeable in a bound book. In the work of the Peerless there is no displacement or swell of the paper along the perforated lines, while the clean-cut of every hole, the absence of all burr, and the accuracy and facility with which the paper separates through the perforations, all excite admiration and commend the machine at once. More than any agency employed the actual work done has advertised the machine and created a demand for it everywhere. The greatest care is exercised in the selection of material, steel and brass of the finest quality enter-

ing largely into its construction. All screws subject to wear, all shafting and spindles, and all gudgeons for rollers are steel; all small rollers, the striker, with smaller parts, are brass. All the boxes, including the center bearings for the spindles that carry the cutters and dies are of gun-metal. The large rollers are of wrought-iron tubing, turned and fitted to the greatest nicety, and the rubber coating for these and the rubber carrying bands are of a material manufactured especially to order for this work. Every part of metal is nickel-plated, where practicable, either for ornamentation or utility. The workmanship on the Peerless is of the highest order, in the care of men trained in the home factory for years and under the closest supervision at all times. This largely accounts for the perfection in detail that makes the Peerless the best perforator.

SOMETHING NEW.

The Challenge Machinery Company has just added an item to "Challenge Creations," being nothing less than the most complete assortment of labor-saving cast-iron furniture. This furniture is made on the point system in the regular labor-saving sizes; is micro-ground, therefore absolutely accurate. The great advantage of cast iron over the ordinary metal furniture is that it can not be dented or bruised, will not expand and afterward contract if used in stereotyping; is much lighter than the ordinary metal and will last a lifetime.

This furniture is made in various assorted fonts, or selections can be made of just the size pieces needed. A descriptive price-list will be sent if you address The Challenge Machinery Company, Grand Haven, Michigan.

A NEW TYPE-HIGH NUMBERING MACHINE THAT PRINTS FIGURES ONLY.

During the last few years, system in business methods in the United States has assumed such vast proportions that the question of supplying numbered work or blanks necessary to carry out this extensive system has become quite a problem. The typographic numbering machines used for this purpose, while fully meeting all the requirements in regard to the production of numbers in large quantities, are called upon at times to produce these numbers without connection with any prefix, such as a "No.," a period, or other prefix of any kind.



Printers generally desire a machine that will print figures only, and for lithographic work, such as checks, etc., where they are to be numbered, it is absolutely necessary to do this numbering without showing a prefix of any kind.

The Wetter Numbering Machine Company, 331-341 Classon avenue, Brooklyn, New York, is the pioneer in the numbering-machine business, and was the first to introduce typographic numbering machines in the United States; and was also the first to patent and incorporate in a typographic numbering machine a plunger with a "No." affixed to same to operate a machine of this kind, and is now the first to announce to the printers a new type-high numbering machine that will print figures only, discarding the plunger which it originated, and which for many years was manufactured by it under United States patents.

There have been several attempts to manufacture a machine of this kind during the last eight or ten years, but all of them have been failures with the exception of the "Better Wetter," which is the only machine in the world that was so constructed that it would give good results.

The Wetter Numbering Machine Company was not satisfied, and has, during the past few years, devoted considerable time to perfecting a machine that was wanted by all large users of this class of machinery.

The mechanical construction of this machine is such that it can not make a mistake unless it is carelessly clogged up with ink and dirt. The pressure of the platen or cylinder on the figures operates the mechanism which changes the numbers, and at the same time brings into action ingenious bearers which act like human arms, and raise automatically, holding the printed sheet off the figures while they are changing. These bearers or arms do not print on or indent the paper.

This new machine works with the precision of clockwork; this intelligent compact mass of steel prints numbers clean and sharp, changing them automatically at each impression of the press. To watch them in quick automatic movement doing their work so thoroughly is a striking exemplification of mechanical accomplishment.

If a prefix or suffix should be desired, it can be attached without removing the machine from the form. All machines are drilled ready for the characters either to precede or follow the figures.

The "Better Wetter," like all other Wetter machines, is made of the best material throughout and all parts are hardened where necessary, insuring durability, perfect accuracy and long life.

This is not a complicated machine in any way, in fact it is one of the simplest in construction, and the fact that it has so few parts tends to show at a glance its advantage over all other machines.

One feature of all typographic numbering machines has been that the drop-ciphers, under hard usage, were apt to become low and print indistinctly. The Wetter Company has improved this seemingly insignificant part of their machine, until it now stands out as one of the strong features of the "Better Wetter," the drop-cipher, as incorporated in this machine, is so constructed that it can not, under the most severe usage, become low.

We are pleased to announce this to our readers, as this particular matter has come under our notice quite a number of times during the past few years.

The simplicity of this machine is such that it can be taken apart in a moment to clean. It is necessary to do this but once in several months, even if used continually every day, for the reason that it is so compactly put together.

The "Better Wetter" has a wider range of usefulness than the Plunger pattern, and we understand from the manufacturers that this machine can be supplied with any number of wheels from two to nine, and with any style figures desired from one-eighth-inch to three-sixteenth-inch deep, and also that special models can be furnished that will duplicate any number; or to triplicate; to print any one number any number of times, and then automatically advance to the next higher number, and, in fact, all combinations that can be usually made in a machine of this kind.

The Wetter Company issues a little pamphlet of this machine which can be had upon application.

"AN INSPIRING AND GUIDING STAR."

We appreciate the good work being done by THE INLAND PRINTER. As a connoisseur of things printorial, it is an inspiring as well as a guiding star, and has wrought wonders in the art for the craft. THE INLAND PRINTER should be known as the "Golden Book of Printerdom."—*I. L. Twilley & Co., Baltimore, Maryland.*

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

A POCKET COMPANION for Linotype operators and machinists; price $1. S. SANDISON, 318 W. 52d st., New York.

COST OF PRINTING, by F. W. Baltes, presents a system of accounting which has been in successful operation for many years, is suitable for large or small printing-offices, and is a safeguard against errors, omissions or losses; its use makes it absolutely certain that no work can pass through the office without being charged, and its actual cost in all details shown; 74 pages, 6¾ by 10 inches, cloth, $1.50. THE INLAND PRINTER COMPANY, Chicago.

DRAWING FOR PRINTERS, a practical treatise on the art of designing and illustrating in connection with typography; containing complete instructions, fully illustrated, concerning the art of drawing, for the beginner as well as the more advanced student, by Ernest Knaufft, Editor of *The Art Student*, and Director of the Chautauqua Society of Fine Arts; 240 pages, cloth, $2 postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELECTROTYPING, a practical treatise on the art of electrotyping by the latest known methods, containing the historical review of the subject, full description of the tools and machinery required, and complete instructions for operating an electrotyping plant, by C. S. Partridge, Editor of "Electrotyping and Stereotyping" department of THE INLAND PRINTER; 150 pages, cloth, $1.50 postpaid. THE INLAND PRINTER COMPANY, Chicago.

HINTS ON IMPOSITION, a handbook for printers, by T. B. Williams. This book is a thoroughly reliable guide for the imposition of book forms, and shows, in addition to the usual imargrams, the folds of the sheet for each form, with concise instructions; several chapters are devoted to "making" the margins; 96 pages, 4 by 6 inches, full leather, flexible, gold side stamp, $1. THE INLAND PRINTER COMPANY, Chicago.

PHOTOENGRAVING, by H. Jenkins, containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapters on dry-plate development and half-tone colorwork; no pains have been spared to make the work of utility, and all generalizing has been avoided; no theories have been advanced; profuse examplcs show the varied forms of engraving, the three-color process being very beautifully illustrated, with progressive proofs; blue silk cloth, gold embossed, revised edition, $2. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL FACTS FOR PRINTERS, by Lee A. Riley; just what its name indicates; compiled by a practical man, and said to be the most practical little book ever offered to the trade; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL GUIDE TO EMBOSSING, written by P. J. Lawlor, and published under the title "Embossing Made Easy"; we have had this book thoroughly revised and brought up to date, and added a chapter on cylinder-press embossing; contains instructions for embossing by the various methods applicable to ordinary job presses, for making dies from various materials readily obtained by every printer; also for etching dies on zinc; there are cuts of the necessary tools, and a diagram showing the operation of the dies when put on the press; 75 cents. THE INLAND PRINTER COMPANY, Chicago.

PRESSWORK, a manual of practice for printing pressmen and pressroom apprentices, by William J. Kelly; the only complete and authentic work on the subject ever published; new and enlarged edition, containing much valuable information not in previous editions; full cloth, 140 pages, $1.50. THE INLAND PRINTER COMPANY, Chicago.

THE RUBAIYAT OF MIRZA MEM'N, published by Henry Olendorf Shepard, Chicago, is modeled on the Rubaiyat of Omar Khayyam; the delicate imagery of Old Omar has been preserved in this modern Rubaiyat, and there are new gems that give it high place in the estimation of competent critics; as a gift-book nothing is more appropriate; the binding is superb, the text is artistically set on white plate paper, the illustrations are half-tones from original paintings, hand-tooled; size of book, 7¾ by 9¾, art vellum cloth, combination white and purple or full purple, $1.50; edition de luxe, red or brown India ooze leather, $4; pocket edition, 3 by 5¾, 76 pages, bound in blue cloth, lettered in gold on front and back, complete in every way except the illustrations, with full explanatory notes and exhaustive index, 50 cents. THE INLAND PRINTER COMPANY, Chicago.

VEST-POCKET MANUAL OF PRINTING, a full and concise explanation of the technical points in the printing trade, for the use of the printer and his patron; contains rules for punctuation and capitalization, style, marking proof, make-up of a book, sizes of books, sizes of the untrimmed leaf, number of words in a square inch, diagrams of imposition, and much other valuable information not always at hand when wanted; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

A REAL OPPORTUNITY — I own controlling interest in an incorporated publishing company, charter in the United States perpetual, Illinois 99 years; covers every portion of the publishing business; can own real estate, manufacture paper, hold stocks or bonds of other corporations, etc.; this charter is valuable; the company publishes a magazine for women, a good one; over 25,000 subscribers, established; my reason for selling is other business takes whole attention; will take my pay in advertising in the magazine; can arrange for $1,000 worth of advertising outside my own; one or two experienced men with $2,000 to $3,000 capital can build the business to enormous proportions; above statements are true; if interested, come to Chicago; particulars at interview only. A 272.

BOOKBINDERY — Long established, well equipped edition, pamphlet and blank (power), at Vermont's capital; 15 employees; large amount State, county, town, city, insurance, bank and library work; no competition within 40 miles; grand chance for working proprietor, or as branch for large concern; another business makes it impossible for me, under present management, to get out promptly large amount work coming to shop; only $1,000 to $2,000 required as first payment, balance easy terms; will take partner or competent working manager under conditions. M. W. WHEELOCK, Montpelier, Vt.

FOR LEASE — 50 by 100 feet on Clark st., near Harrison st., Chicago, or will build to suit tenant. A 274.

FOR SALE — Cheap for cash, in Asheville, N. C., the healthiest city in America, small job office with good cash customers; established three years; outfit practically new; owner has regained health and wants to return home. CAROLINA PRINTING CO., Asheville, N. C.

FOR SALE — Complete newspaper and job plant in excellent condition, publishing daily 1,600 circulation, weekly 2,500, in growing city of 12,000 population; doing between $2,500 and $3,000 of business per month and steadily increasing; in splendid field to improve. For particulars, price and terms write C. A. McCOY, Lake Charles, La.

FOR SALE — Job printing and bookbinding plant in town of 15,000 in central Ohio; well-established trade; plant is only 7 years old; 2 Miehles, 2 Gordons, wire stitcher, cutter, perforator, punching machine, Porter extension cabinets, individual motors; only exclusive job office in the city; good prices, low wages; no union; now doing $12,000 annual business; will stand close investigation; offered at fair valuation for personal reasons; I have not time to answer letters of curiosity seekers; if you mean business write. A 226.

FOR SALE — Oldest Democratic paper in Idaho, published at county seat of largest and most rapidly growing county in State; 2 railroads now building; county and city contract, large job business, best equipment, water power; nets over $3,000 per year; price, $5,000. PARKER-CLARK CO., Grangeville, Idaho.

FOR SALE — One-half large paying printing-binding plant; also one-half smaller job plant; also profitable magazines and papers. FRANK H. KNOX (Broker), Albany, N. Y.

FOR SALE — Thoroughly up-to-date 3-press litho plant in Illinois city of 50,000 inhabitants; exceptional terms to reliable party; plant has established trade of 10 years' standing. A 238.

PRACTICAL MONOTYPE MAN (caster or keyboard) with $1,700 cash can purchase a third interest in prosperous Monotype business in city of 300,000; North Central State. A 178.

PRINTING BUSINESS in thriving New York State city; cylinder, 2 jobbers, profitable, established trade; $1,000; going West. A 259.

WANTED — Editor and advertising manager high-class country weekly; large circulation, incorporated company, large printing plant, splendid profits; salary; must invest at least $2,000; only competent men of good character need apply; bank and newspaper references required. A 242.

$2,000 established printing, San Francisco; 4 presses, cutter, motor, etc.; cheap rent, good location, good prices, union. A 233.

Publishing.

ONE OF AMERICA'S foremost monthly periodicals obtainable at moderate figures owing to new situation within company; making 15 per cent annually on $700,000 and capable having profits doubled by slight change in policy; old, very substantially established, susceptible great extension; property named only after applicant is vouched for and owner consulted. Write, with references. EMERSON P. HARRIS, 253 Broadway, New York.

FOR SALE OR EXCHANGE.

A GREAT BARGAIN IN PRESSES AND CUTTER: 1 new one-color Harris Automatic press, 15 by 18, right up to date, sheet, card, envelope and book feed; 3 horse-power Jenney motor run about 2 weeks; change in business leaves it without work; cost us $2,752.50 net cash; we ask $2,300; what will you give? 1 Miehle 00, size 43 by 56, latest style, practically new, motor and speed regulator, etc.; would cost new, net cash, $3,430.50; we ask $2,800; what will you give? 1 secondhand old style 36-inch Sheridan power cutter, hand clamp, 3 knives, good condition, ask $175; all in Chicago; come and see them. A 273.

Knife Grinders

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

1–8

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E — To stand on bench. Dry grinding only. 26-in. $50, 32-in. $55, 38-in. $60.

Style A — With iron stand. Wet or dry grinding. 26-in. $75, 32-in. $85, 38-in. $90, 44-in. $100, 54-in. $115, 60-in. $150. With water attachment, $10 extra.

Style C — Extra heavy. Wet and dry grinding. 54-in. $185, 60-in. $185, 75-in. $205, 90-in. $225.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N.Y.

FOR SALE OR EXCHANGE.

FOR SALE — A six-column Campbell newspaper press in excellent condition; better investigate; price $300. C. W. HILL, Wellsburg, W. Va.

FOR SALE — Good secondhand power corner cutter; 3 knives; guaranteed perfect order. OSWEGO MACHINE WORKS, Oswego, N. Y.

FOR SALE — Goss clipper, prints 4 or 8 pages, 6 or 7 columns, 10,000 per hour, with stereotype outfit complete; also shafting; sacrifice. A. T. ST. JACQUES, Raleigh, N. C.

FOR SALE — Hoe drum cylinder press, bed 27 by 33, tapeless delivery; 9 by 13 Favorite press; one 3 horse-power, one 4 horse-power and one 5 horse-power motors; Otto gas engine; all in good condition. A 260.

FOR SALE — Lanston Monotype, keyboard, job attachments, high-class condition; quick if you want it. A 283.

FOR SALE — Linotype machine, two-letter, in A-1 condition, now running; also some magazines, 24 moulds, liners and the following one-letter matrices: 3 fonts 11-point Roman No. 1, 1 font 10-point Roman No. 1, 2 fonts 6-point Roman No. 2, 1 font 11-point Old Style No. 1, 1 font 10-point Old Style No. 1, 1 font 8-point Old Style No. 1, 1 font 6-point Old Style No. 1; price moderate; liberal terms to reliable parties; for further particulars address H. N. MASON, 679 E. 139th st., New York, N. Y.

FOR SALE — Linotype parts; first elevator jaws (2), Model No. 5, catalogue No. E 438 (assembled); one has been used 3 months, the other 2 years; also 2 fonts matrices, 6-point Roman No. 1 — one letter, and 3 fonts matrices, 8-point Roman No. 1 — one letter; matrices are about half worn. CHICAGO NEWSPAPER UNION, 93 S. Jefferson st., Chicago.

FOR SALE — Linotypes in thoroughly good condition, one or two magazines with each, single or double letter attachments, at a bargain. UREY WOODSON, Owensboro, Ky.

FOR SALE — One latest model Whitlock 2-revolution press, takes sheet 39 by 54 inches, fine order, bought new November 1, 1904; would exchange for a smaller size. E. M. LYMAN & SON, Springfield, Mass.

FOR SALE — One Simplex machine in good condition; also about 800 pounds 8-point Roman. CATHOLIC UNIVERSE PUB. CO., Cleveland, Ohio.

FOR SALE OR EXCHANGE — One Levy 50-line half-tone screen 14 by 17, perfect condition. DISPATCH, St. Paul, Minn.

FOR SALE — Paraffin machine for coating paper or cardboard with paraffin wax; will take sheet 30 by 38; also our stock of stock signs consisting of over 100 different expressions; we will close these out very low in order to make room for our regular line of lithographed work. WALKER LITHO & PRINTING CO., Dayton, Ohio.

PHOTOENGRAVERS' MACHINERY, cameras, screens, lenses, etc., for sale; write for list and prices. GRIP, LIMITED, Toronto, Ont.

POWER STRIKER RULING MACHINE and Singer sewing machine, sliding table, or will lease complete bindery with services. A 237.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with The Inland Printer Employment Exchange and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job-printers, 9; Linotype operators, 5; Linotype machinist, 1; machinist-operators, 3; foremen, 7; all-round men, 2; bookbinders and rulers, 8; salesman, 1; solicitor, 1; ad.-man, 1; stoneman, 1; artist, 1; pressmen, 9; reporter, 1; business manager, 1. Registration fee, $1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

All-round.

ALL-ROUND PRINTER AND PRESSMAN wanted, with foremanship of factory if competent; an experienced counter check-book man preferred; permanent situation for right party; address, stating salary and references, A 267.

GOOD, TEMPERATE job compositor, pressman and estimator; good weekly salary with opportunity to right man for participating in earnings of office; will be given stock with opportunity of purchasing more; live weekly newspaper and job office. A 278.

WANTED — Non-union man to run cutter and take charge of pony and 2 jobbers; cheap work only; must know a little about composition and be able to lock up forms. MERCHANTS' SALES BOOK CO., 7440 South Chicago ave., Chicago.

Artists.

ARTIST WANTED — First-class, all-round artist; steady position; apply, with references, salary desired, to STANDARD ENGRAVING CO., St. Joseph, Mo.

COMMERCIAL ARTIST, particularly good in designing, colorwork and general all-round work in a very high-grade establishment; should be able to do good mechanical wash-drawing and retouching; a young man of ideas and ability, willing to work hard, is wanted; such a man will be given a salary of $35 per week with prospects of a bright future; a man of hustle and executive ability preferred; if you know of such a man, available, let us hear from you; address, giving full particulars, A 285.

Bindery.

WANTED — Blank-book forwarder, a two-thirder preferred; splendid opportunity to complete trade. A 263.

WORKING FOREMAN for small bindery; capable of handling ruling, blank-book and job binding. A 271.

Composing-room.

WANTED — Good artistic job compositor, non-union, for commercial and general work; wages $18 to $20 per week. Address, with samples and references, GAZETTE PUBLISHING CO., Niagara Falls, N. Y.

WANTED — Good opening for job-printer in town of about 2,000, without competition; have fine outfit. S. A. WEAVER, Northville, N. Y.

WANTED — Job compositor having knowledge of folding-box work to take position as working foreman in small composing-room, working 10 hours per day; state salary and experience. R. ROBERTS, 156 Auburn ave., Buffalo, N. Y.

Engravers.

COPPERPLATE ENGRAVER to run plant on commission; good opportunity for right party. ALABAMA ENGRAVING CO., Birmingham, Ala.

WANTED — A first-class retoucher on mechanical photographs for an engraving establishment. A 216.

Pressroom.

CYLINDER (PONY) PRESSMAN wanted by private concern printing up-to-date advertising matter, etc.; must be sober and efficient; no "experiments" wanted; position is in the finest city in the United States; fair wages for 54 hours' work per week; steady employment the year around; married man preferred. A 275.

FIRST-CLASS, hustling platen pressman; permanent position; high-grade work; union; Eastern city; state salary, experience and references. A 266.

WANTED — Foreman for pressroom operating 2 cylinders, 2 automatic, 9 jobbers and 4 creasing presses, working 10 hours per day; state salary and experience. R. ROBERTS, 156 Auburn ave., Buffalo, N. Y.

Salesmen.

WANTED — A salesman who has had experience in the selling of lithographing and printing; apply, stating experience and salary expected, to A 253.

WANTED — Experienced men in Texas, Arkansas, Colorado, Louisiana, New Mexico, Arizona, Indian Territory and Oklahoma to represent a modern printing, bookbinding and lithographing plant. A 264.

Miscellaneous.

WANTED — In Southern city, man to print monthly paper in exchange for rent of house, office and plant; fine climate. MRS. J. M. RANSIER, Hendersonville, N. C.

WANTED — Young man familiar with printing, paper and manufacturing to learn embossing business; must be energetic and capable of handling help; references required; good future; wages to start, $12 to $15. A 240.

SITUATIONS WANTED.

DO YOU WANT HELP FOR ANY DEPARTMENT? The Inland Printer Employment Exchange has lists of available employees for all departments, which are furnished free of charge. The following are now listed with us, seeking employment: Job-printers, 17; all-round men, 8; make-up, 1; superintendents and foremen, 20; artists and cartoonists, 3; pressmen, 24; editors and reporters, 2; bookbinders, 5; advertising and business managers, 6; solicitor, 1; proofreaders, 4; photoengravers, 3; ad.-men, 3; compositors, 3; stonemen, 2; electrotypers and stereotypers, 5; Linotype operators, 10; machinist-operators, 10; Linotype machinist, 1. Address THE INLAND PRINTER COMPANY, Chicago.

Artists.

ARTIST, experienced, good designer and letterer, wants position in engraving or sign house. A 276.

Bindery.

POSITION WANTED — First-class blank-book finisher who understands ruling and forwarding would like to make a change; A-1 references; capable of taking charge of a bindery. A 230.

PRINTS BRIGHT GOLD
(See Insert, April, 1905)

RIESSNER'S IMPERIAL GOLD INK
Not made for anything but Plated and Coated Stock.
Careful printers using this Gold Ink on Plated and Coated Stock can do work equal to Dry Bronzing. Printed specimens furnished on application.

Rich Gold, . . . $3.00 per lb.
Pale Gold, . . . 3.00 "
Copper, ... 3.00 "
Aluminum, . . 4.00 "

Put up in ½ and 1 pound tin cans.

T. RIESSNER
57 Gold Street, NEW YORK

SITUATIONS WANTED.

Bindery.

WANTED — A position by a young man as ruler or forwarder; have had several years' experience in a small bindery; can take charge if necessary. A 270.

Composing Room.

UP-TO-DATE JOB COMPOSITOR, who also operates and takes care of Linotype, wants situation in Middle West. A 244.

Electrotypers and Stereotypers.

SITUATION — By strictly first-class electrotype molder having infallible nickel process; competent in all branches; 15 years' experience. A 254.

SITUATION WANTED by a first-class stereotyper for newspaper work, 16 years' experience, best of references, to take charge. A 168.

Engravers.

EXPERIENCED zinc color plate and copper etcher desires to make a change; references furnished. A 265.

HALF-TONE AND THREE-COLOR ETCHER with large experience, both in Europe and the United States, wants position; prefers a city on the coast; price $25 weekly. A 241.

SITUATION WANTED — Experienced three-color finisher and Ben Day worker as superintendent or foreman; good opportunity for reputable firm to secure a capable, sober and industrious man. A 251.

Managers.

A GENTLEMAN, thoroughly conversant — through long experience — with every detail of the printing, lithographing and folding-box business, and until recently manager of large concern, seeks opportunity in similar line as manager, superintendent or purchasing agent; highest references. A 268, care New York Office INLAND PRINTER.

THOROUGHLY COMPETENT PRINTER of 10 years' experience as superintendent and manager desires similar position in New York or New England. A 220.

YOUNG MAN (32), of good education, with 11 years' experience in Linotype work, himself capable of composing 8,000 ems per hour correctly, and thoroughly understanding machine and its care, will take charge of Linotype department with responsible house or work in advisory capacity; experienced, careful proofreader and practical in other departments; now employed, but will change if opportunity for growth is afforded; references as to character and ability given. A 249.

Operators and Machinists.

A HIGHLY COMPETENT, reliable, practical mechanic, machinist-operator and printer, a man of integrity and skill, who can bring plant to highest efficiency, will locate within suitable environments. A 279.

LINOTYPE MACHINIST, 8 years' experience, both news and job, union; South or West preferred; married, sober; good reason for change. A 252.

MONOTYPE CASTER OPERATOR, 2 years' experience, desires change; understands keyboard mechanism; practical printer; union; references. A 239.

MONOTYPE KEYBOARD OPERATOR (lady) desires situation; quick, accurate; 4 years' experience. A 229.

OPERATOR-MACHINIST open for engagement; 10 years' experience, sober, A-1 machinist and good, clean operator; married, union; West preferred. A 63.

SITUATION WANTED — Monotype operator (union); experienced; had charge of one of the largest plants in Chicago before the strike. A 227.

WANTED — Position as operator on Linotype; fair speed, with some experience as machinist-operator; good habits and reliable; desires change; am union man and will not consider any position where trouble is imminent. A 256.

WANTED — Position on Linotype by *good* printer; speed 3,500 per hour; desires position where he could work on Linotype most of the time to acquire speed; steady and reliable, strictly temperate, uses no tobacco, union. A 129.

Pressroom.

A FIRST-CLASS cylinder and platen pressman desires to go West; sober and reliable; references; union; capable of taking charge; Western or Southwestern States preferred. A 179.

A FIRST-CLASS cylinder pressman wishes a situation; can do the finest half-tone and color work; understands automatic feeders; will go anywhere in the United States. 1308 N. 28th st., Philadelphia, Pa.

A POSITION WANTED by an experienced Cox Duplex pressman; sober and reliable; union; can furnish references. A 155.

CYLINDER PRESSROOM FOREMAN — A practical, up-to-date mechanic on high-grade vignette half-tone and color printing, with executive ability to show results, now employed in a large magazine office in New York, will consider a proposition from some first-class printing or publishing house outside of New York city. WM. PRINTER, 512 W. 133d st., New York city.

EXPERIENCED MAN, thoroughly conversant with every detail of the printing business, desires position as superintendent of plant or as foreman of pressroom; best of references and willing to demonstrate ability. A 103.

FIRST-CLASS CYLINDER PRESSMAN, non-union, desires a first-class position where he can have charge of pressroom; at present in charge of pressroom, but not satisfied. A 235.

POSITION WANTED by young, up-to-date half-tone and catalogue pressman, capable of taking charge; West preferred. A 215.

SITUATION WANTED — Cylinder pressman; union; references furnished. LLOYD D. BLISS, 7 Main st., care of H. Dodd, Binghamton, N. Y.

SITUATION WANTED in a pressroom where a good pressman is wanted; one that understands how to get out first-class work; a room where there are from four to six cylinders; nothing less than $25 a week considered. A 245.

WANTED — A position by a first-class platen and cylinder pressman. WALTER CAVELL, 24 Court st., New Haven, Conn.

WANTED — Situation as Duplex pressman; 12 years' experience; married, union, sober. A 223.

Superintendents and Foremen.

WANTED — Situation by young married man as foreman or assistant superintendent with chance of promotion, in a large and first-class printery; have a good practical knowledge of all branches of the job office, can estimate, and also have a thorough and practical knowledge of the Linotype machine and its work; have done some newspaper work also; am in no hurry to make the change. A 281.

Miscellaneous.

DRAWINGS for advertisers, cartoons and designs of all kinds made to order. WAYNE MORRIS, Commercial Artist and Illustrator, Sadsburyville, Pa.

EDITOR, capable man, wants position. H. W. PALMER, 75 Van Buren st., Passaic, N. J.

PAPER STOCKMAN—OFFICE ASSISTANT, etc., 12 years' experience, familiar with all grades of flat and book papers, cover stock, etc., competent to lay off quantities on work of every description; in connection with the above duties, qualified to supervise charge of cutting and shipping departments, or any executive clerical details pertaining to the various departments of a first-class printing and binding establishment; good references furnished. A 269.

WANTED TO PURCHASE.

I DESIRE TO PURCHASE a small daily or a first-class weekly with or without job department, or an interest in a larger plant, Republican or independent; Michigan preferred. A 277.

WANTED — Secondhand Harris press, one or two colors. A. H. TAYLOR, 114 Dearborn st., Chicago.

WANTED — Will pay spot cash for one or two compositypes; give full particulars. A 284.

MISCELLANEOUS.

A COLD SIMPLEX STEREOTYPING OUTFIT, $17 and up, produces the finest book and job plates, and your type is not in danger of being ruined by heat; simpler, better, quicker, safer, easier on the type, and costs no more than papier-maché; also two engraving methods costing only $5 with materials, by which engraved plates are cast in stereo metal from drawings made on cardboard; "Ready-to-use" cold matrix sheets $1. HENRY KAHRS, 240 E. 33d st., New York, N. Y.

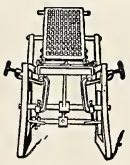
ANYBODY CAN MAKE CUTS with my simple transferring and etching process; nice cuts from prints, drawings, photos are easily and quickly made by the unskilled on common sheet zinc; price of process, $1; all material costs, at any drug store, about 75 cents. Circulars and specimens for stamp. THOS. M. DAY, Box I, Windfall, Ind.

PRINTERS everywhere find the producing of imitation typewritten letters a most profitable side line. Ours is the leading circular letter firm in Chicago, printing millions of letters weekly on our platen and Harris presses. We make our own inks and typewriter ribbons, and guarantee perfect work in every way. Full instructions for operating the process furnished all users of our supplies. No apparatus of any kind required, and no royalties.
Prices: Ink for circular letter printing, per lb., any color, black, blue, green, purple, brown or red, per lb. $2.50
Typewriter ribbons exactly matching, per dozen 4.00
Special prices to large users.
M. M. ROTHSCHILD, Circular Letter Specialist, 96 Fifth ave., Chicago.

IMPROVED THALER KEYBOARD — Made of metal; instructions in fingering; bell announces finished line; detachable copyholder; send for literature; price, $4. THALER KEYBOARD COMPANY, 453 "O" st., N. W., Washington, D. C.

STEWART'S EMBOSSING BOARD — Easy to use; hardens like iron; 6 by 9 inches; 3 for 30 cents, 7 for 50 cents, 12 for 80 cents, postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELITE RULE BENDER WILL BEND RULE ANY SHAPE DESIRED
Full instructions with each Bender. Postpaid, $2.00
ELITE MANUFACTURING CO., Detroit, Mich., Station A



New, STEREOTYPING
SCHREINER'S CROSS-CORE CASTING BOX
The most perfect machine. Cast irregular size plates, type high, with crossing cores; the best base, saves time, saves metal, produces the best plates, saving time on the press. Plates move easily from the cover, by improved gauges and lifter. No warping or shrinking of plates. Saves all expense for metal or wood bases. Also, we have **Stereotype Paper,** ready to use, for the finest class of jobs, etc.
FRIEDRICH SCHREINER, Mfr., Plainfield, New Jersey.


Making a quick, 2-minute washup

THE NEW CENTURY **"A FOOL-PROOF FOUNTAIN"**
ACCORDING TO THIS PURCHASER.

BECAUSE — Its construction is simple. Its one-screw ink regulation is simple. Its one-screw roller-contact is simple. It is not necessary to readjust it after washup or in changing jobs. It will not mark the print. It minimizes the danger of offset by reason of uniform inking. It can be taken apart in a few seconds, with the fingers, without screw-driver or wrench. It will do the work of a long fountain without its disadvantages. It is a producer of RESULTS — *More Impressions* and *Better Work.*

FOR CHANDLER & PRICE, CHALLENGE, AND ALL GORDON PRESSES.

Get a descriptive circular from your dealer or send to us.

THE WAGNER MFG. CO., Scranton, Pa.

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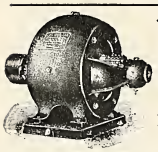
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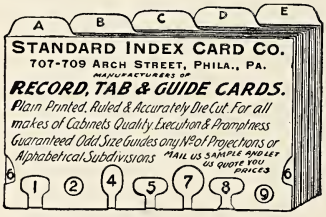
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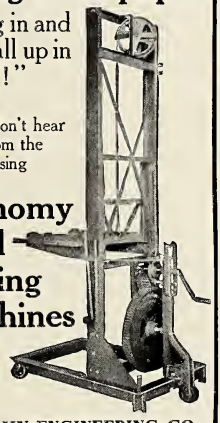
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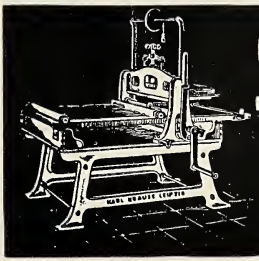
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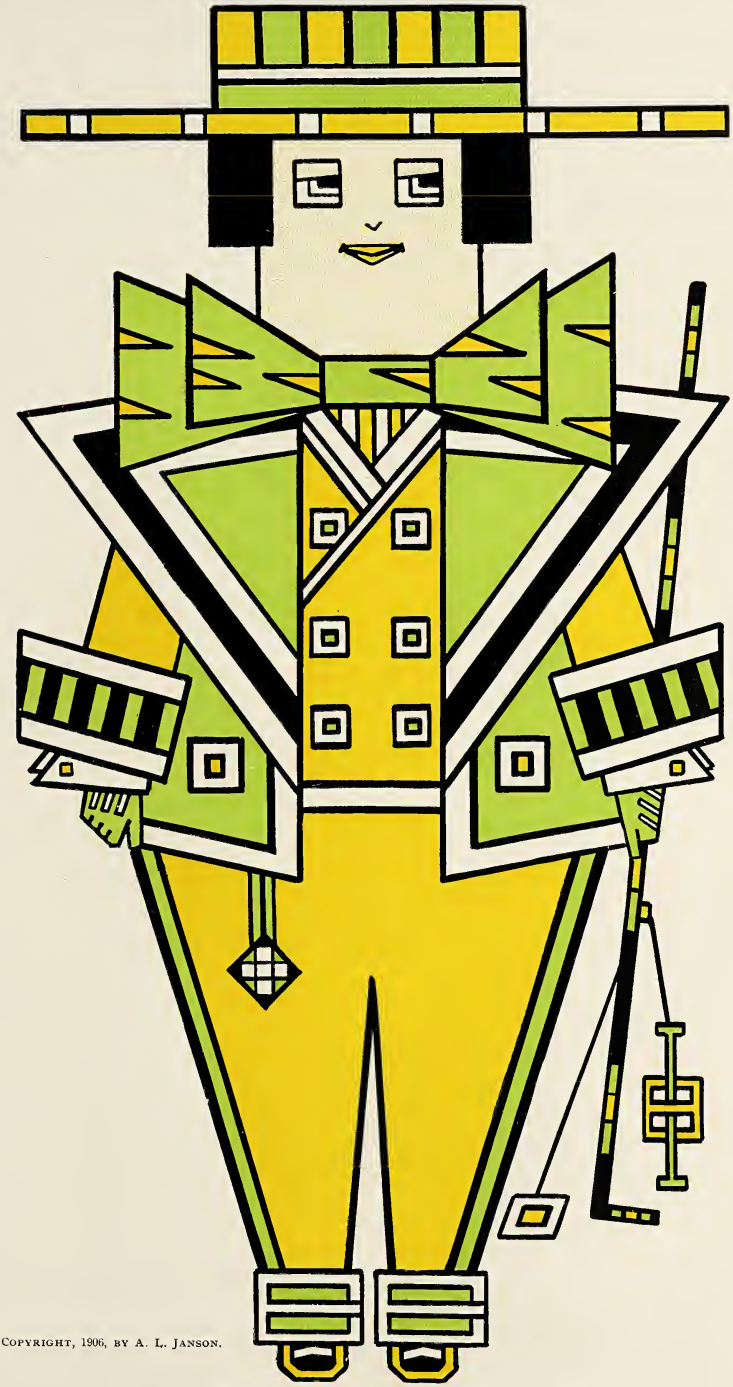
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VOL. XXXVII. No. 2. **MAY, 1906** TERMS { $3.00 per year, in advance. Foreign, $3.85 per year.

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THE FIRST AUTOMATIC PRESSES.

BY JOHN R. LOHNES.



"IN reviewing those great eras of national industry," wrote Dr. Andrew Ure, "when the productive arts, after a long period of irksome vassalage, have suddenly achieved some new conquest over the inertia of matter, the contemplative mind can not fail to be struck with the insignificant part which the academical philosopher has generally played in such memorable events. Engrossed with barren syllogisms, or equational theorems, often little better than truisms in disguise, he nevertheless believes in the perfection of his attainments and disdains to soil his hands with those handicraft operations at which all improvements in the arts must necessarily begin. He does not deem a manufacture worthy of his regard till it has worked out its own grandeur and independence with patient labor and consummate skill."

The writer believes that the doctor's opinion is very sensibly applicable to the art of printing, "an art invented for the honor of learning and the glory of the learned," yet in nowise have these individuals contributed toward its perfection, but by the power of the fates it has subsequently "served as the great teacher and guardian of the whole family of man!"

For nearly three hundred and fifty years from its invention no new improvements were introduced until the year 1798, when the demand for quick circulation and delivery of national intelligence made it utterly impossible for the wooden hand press of the time to accomplish anything like suitable service. The first attempt to combat the inadequacies prevailing at that time was made by the Earl of Stanhope, who, one writer asserts, "was the only man of learning in Europe whose name figures in the annals of typography." From the insufficiently detailed description of the press it may reasonably be assumed that it was very similar to the Washington hand press of later date, the power being applied "upon the infinite lever principle." However, as it did not act on a continuous, but reciprocating motion, it could hardly be called automatic, and its capacity but slightly exceeded that of the old wood presses already in use, as it would turn off but two hundred and fifty impressions to the hour.

In 1790-1, William Nicholson obtained a patent in England for a "self-acting printing-press," and was the first person to publicly announce such an invention. The patent covered two devices, namely: a flat bed and a rotary. In the first plan the types were imposed on the bed of the press, and, after the color application, passed under the cylinder, which was covered with a woolen blanket to receive the "impression." In this Mr. Nicholson brought out the principal active constituents that have subsequently been employed in the different drum-cylinder machines. In the second plan, he imposed the types on a cylinder placed between two other cylinders, one to supply the ink and the other to take the "impression." Had he abandoned the latter problem and labored to perfect

his flat-bed plans, he would have had, in all probability, a working *typographie mechanique* instead of hopeless vanishing ideals.

The honor of producing the first operative automatic press is more than likely due to a clockmaker from Saxony by the name of Konig, who from 1804 until some time previous to November 28, 1814, had employed the most of his time in the improvement of printing-presses. In 1811 he obtained an English patent for operating a hand press by power, but the expense and consecutive failures forced him to abandon the enterprise. He then applied his ingenuity to the conception of a cylinder for communicating the pressure to the form instead of the flat plate, and the result of his efforts was made public on the 28th of November, 1814, when the London *Times* informed its readers that they were reading for the first time a newspaper printed by steam-impelled machinery.

In the *Times* press the form was made to traverse horizontally under the cylinder and the sheet to be printed was held in place by a system of endless linen tapes. The ink fountain consisted of a cylinder-shaped box and the ink was forced out by an automatic screw device operating a piston, where it fell between two iron rollers and was by their rotation taken on to six subjacent rollers, all except the two large form rollers having an alternating (endwise) motion for securing an even distribution of the color. The ink fountain was not a success, owing to the complex mechanism causing much time to be wasted in adjusting to requirements, and it was later superseded by the invention of a Mr. Cowper. In order to double the capacity, a machine was built with two cylinders, one on either side of the ink fountain, and the form made to pass under both. By this double impression the press would print eleven hundred sheets an hour, and later improvements increased the production to eighteen hundred.

The next achievement of the clockmaker from Saxony was the construction of a press that would print both sides of the *Times* at one time. When it was set up it resembled two single presses placed with their cylinders facing each other with a distance of two feet intervening between them. The sheet traveled from one cylinder to the other by means of linen tapes and the trail it made described a letter "S" laid horizontally, thus the sheet was turned over or reversed in its passing through from the first cylinder on to the second. The press was erected in 1815, and was the only self-registering machine ever constructed by Konig, a feat that required the most careful geometrical calculation to pass the critical requirements of book printing.

A machine was constructed for the University of Cambridge by Messrs. Donkin & Bacon, under a patent granted to them in 1813, which consisted of a revolving prism on which the forms were locked. The ink was applied to the face of the type by means of a roller which rose and fell with the eccentricities of the prismatic surface and the sheet was fastened on another prism so as to conjugate with the form prism. It was described as "a beautiful piece of ingenious contrivance and workmanship," yet too complicated for the understanding of the ordinary pressmen of the times, and defective in color distribution, yet this is the first press on which the experiment of composition rollers was attempted with glue and treacle. Konig's rollers were metal cores covered with leather.

In 1815 Mr. Cowper obtained a patent for curving stereotype plates to be locked on a cylinder. The capacity of the machine was one thousand an hour, completing both sides at one time, an actual working perfecting press.

In their efforts to perfect an automatic press the inventors seem to have sought the solution of the problem in the revolution of the forms. Nicholson's, first and least practical, sought to effect it by shaping the shank or body of the type "like the stone in an arch"; Donkin & Bacon by locking the forms to the flat surfaces of a revolving prism, and Cowper by curved stereotype plates. In Cowper's press the blanketed cylinders were placed side by side and against each of these the form cylinders. Three-fourths of the surface of the form cylinders had a film of ink deposited on them by the fountain rollers, and as they revolved six form rollers took it up and distributed it over the plates. Although this machine was convenient only where stereotyped plates could be made, the importance of its invention can only be fully appreciated by the publishers of to-day.

The success of Cowper's color distribution created a demand for its use in printing from types, and accordingly he and Mr. Applegath built a press for printing both sides of the paper from type, and in this their scientific judgment dispensed with forty wheels which were necessary to the clockmaker's press. In connection with this it might be interesting to note that the hand roller and ink stone, so indispensable now, were the invention of Cowper, and its vast superiority over the balls was soon recognized, but with no profit to the inventor, as it was so unceremoniously and simultaneously infringed upon by the printers all over England as to render all efforts to secure his rights by prosecutions utterly futile.

The period of time succeeding that in which Cowper & Applegath designed and built their last great press for the London *Times* the writer believes is amply covered with information relating to the history of the automatic or power press.

Written for THE INLAND PRINTER.

ANALYSIS OF A HALF-TONE PORTRAIT.

BY N. S. AMSTUTZ.



THE original photograph from which both half-tones are reproductions is a soft brownish-black platinum print with considerable "surface texture" showing in the background, so that it is not an easy subject to reproduce. The engraving (Fig. 1) is inserted alongside of Fig. 2, not for purposes of invidious comparison, but to show clearly what variation in treatment and interpretation has been given to each of the reproductions.

It is impossible to properly appreciate the actual closeness of adherence to a given requirement unless one makes comparisons in the light that one condition may throw on another. The engravings themselves are made the subject of comparison so that the various modifying influences that interpolate themselves between the engravings and their finished prints may to a large degree cancel each other, because the same personal equation is impressed upon each specimen.

When one realizes how much misunderstanding and undeserved blame of reliable workmen arise from a combination of circumstances in which no particular blame can attach to any one in the matter of printing half-tones, it becomes an important matter to lay such a groundwork for comparisons, establish certain standards of attainment, etc., as shall make the lot of all craftsmen an easier one, because there will be little or no carping criticism, but there may be a great deal of wholesome analysis of efforts and results that will be productive of far-reaching results.

Photographs or wash-drawings having a deep black background with little gradation in the middle tones when used as copy for half-tone plates may show up well in the engraver's proof. This is because the ink can be placed on the cut with a hand brayer, and the overlays made to bring out deep blacks, middle tones and "whites" with all the gradation, and sometimes even better gradation than was present in the original copy. After the ink is on the plate the prover can, and frequently does, manipulate the plate by wiping off color here and there after the style of the worker in photogravure, steel die or copperplate printing.

The prover's mind is concentrated on getting a nice proof, and rightfully enough from one point of view, for he has not been awakened to the fact that in general the work he is doing is to set the pace for the man to whom the cut will come for interpretation on the cylinder press. What can be done on the Washington hand press can only be approximated on the cylinder press. A half-tone cut will not print dead black in the heavy shadows if the half-tone dot is there. The letterpress may carry so much color that the type

TABLE A.—SPECIAL PORTRAIT HALF-TONES. CHARACTERISTICS @ 145 AND 150 LINES PER INCH.

KINDS OF DATA.	FIGURE 1.				FIGURE 2.			
	"Whites"	Background	Gray	Shadows	"Whites"	Background	Gray	Shadows
Form of Dots and where located.	Smallest ● in collar	○ Near ear	○ Left cheek	Smallest ○ Right eye	Smallest ● in collar	○ Near ear	○ Left cheek	Smallest ○ Right eye
Diameters	.0015″	.0050″	.0060″	.0025″	.0010″	.0035″	.0060″	.0030″
Areas, white	458.3	196.4	282.7	49.1	435.6	96.2	282.7	70.7
" black	17.7	279.6	193.3	426.9	7.9	347.3	160.8	372.8
% of white	96.28	41.26	59.35	10.03	98.18	21.69	63.75	15.94
% of black	3.72	58.74	40.65	89.97	1.82	78.31	36.25	84.06
Unit areas	.0069 × .0069 = .0000476 □ in. = 476				.00666 × .00666 = .00004435 □ in. = 443.5			
Lines per inch	145				150			
Screen pitch	$\frac{1}{145}$″ = .0069 inch				$\frac{1}{150}$″ = .00666 inch			
Diagonal pitch	.00975 inch				.00942 inch			
Areas of pure gray	White 238 and 238 black				White 221.7 and 221.7 black			
Diameter of pure gray dot	.0055				.0053			

TABLE B.—SPECIAL PORTRAIT HALF-TONES. PERCENTAGE CHARACTERISTICS @ 145 AND 150 LINES PER INCH.

	"Whites"		Background		Grays		Shadows	
% white, Figure 1	96.28		41.26		59.35		10.03	
% white, Figure 2		98.18		21.69		63.75		15.94
% black, Figure 1	3.72		58.74		40.65		89.97	
% black, Figure 2		1.82		78.31		36.25		84.06
	100.	100.	100.	100.	100.	100.	100.	100.

looks sloppy, yet the half-tone cut is gray and dead. If additional color is carried in a mistaken effort to make the shadows print solidly the entire cut is "mushed."

The customer who has a job to be printed with illustrations, should, as far as practicable, have all the work done by one house. The printer should be careful to give the engraver advice regarding the character of the stock and ink to be used and also information of the effect sought to be obtained. The engraver will adapt his work to the paper and presswork. Too often, however, a mixture of old and new cuts from a variety of sources and with a variety of meshes are given the pressman, and it is a very difficult task to reconcile, in the same form, the treatment an open cut requires with the treatment required by a solid cut. A cut that is made open by the engraver may be proved up to look almost solid by the prover, but the pressman will find it difficult to make this metamorphosis on long runs on the cylinder press without spoiling the job by destroying the balance between the engravings and the type matter.

This brings us to the point of making an analysis of the two specimens shown. In order that it may be the more readily understood and the one compared with the other the characteristics are given in Table A, which summarizes the values.

The analysis has to do with the screen pitch, unit area, diameter and area of the black and white dots, and the percentage of black and white of four tonal values. The points of observation are noted in the table.

Fig. 1 has 145 lines per inch, a screen pitch of .0069 inch and a unit area value of 476 (.0000476 sq. in.).

Fig. 2 has 150 lines per inch, a screen pitch of .00666 and a unit area of 443.5 (.00004435 sq. in.).

The margins of the white dots in the background of Fig. 1 are ragged to a large degree, thus throwing the dots and the printing areas surrounding them out of symmetry, which produces a "blotchy" appearance. This is probably caused by too vigorous etching or too much heat when baking the "enamel." Either one would cause ragged edges. On the other hand, a slight excess of heat would partially destroy the acid-resisting properties of the enamel and thus allow the acid to attack the copper underneath over the *whole* of the area, but as the plate shows no such action, it is assumed that the defect is due to the lack of adhesion between the enamel and the copper to prevent the flaking away of enamel particles in the acid immediately adjacent to the edges of the dots, thus leaving a ragged margin.

It will be noted from the table that the tonal value of Fig. 1 in the background is quite abnormal. This is apparent at a glance by comparison of one print with the other, but what the *specific value* of such aberration is can not be told in this manner, by offhand visual inspection, hence the desirability of scientific analysis.

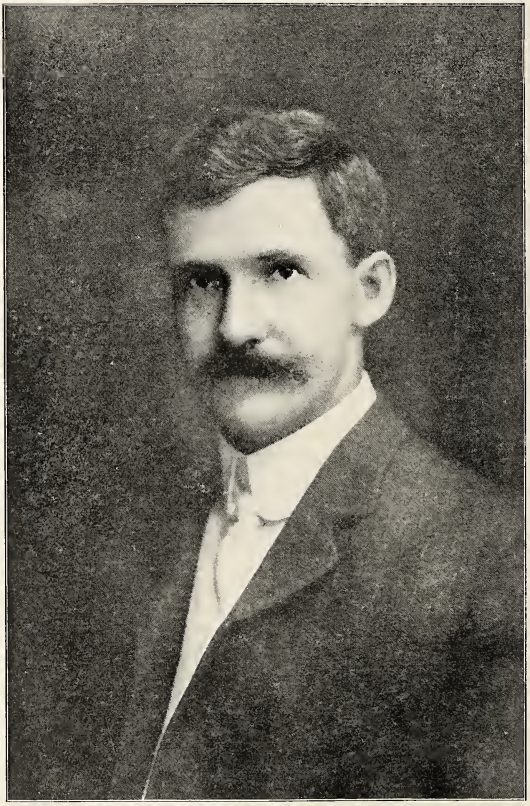


Fig. 1.—145 lines per inch.

When attention is called to certain features, *definite* values should be ascribed to the same. Tonal value should be referred to as diameter or area of dot, or percentage of white. The latter would be preferable, as it is easy to make up a table showing such percentage values for various screens and diameters of dots, giving *unit areas* as well. Black percentages are easily found by simply subtracting the percentage of white from 100.

By doing things along these lines, process engraving will be placed on the proper scientific plane, and the day of uncertainty, when the sentiment of the skit on indefiniteness, " As long as a piece of string and as big as a lump of chalk," was the rule, will have passed into oblivion.

The differences of the two engravings are clearly pointed out in Table B, which is self-explanatory. The areas for both the black and white values are given in Table A so as to more clearly show wherefrom the percentages are derived.

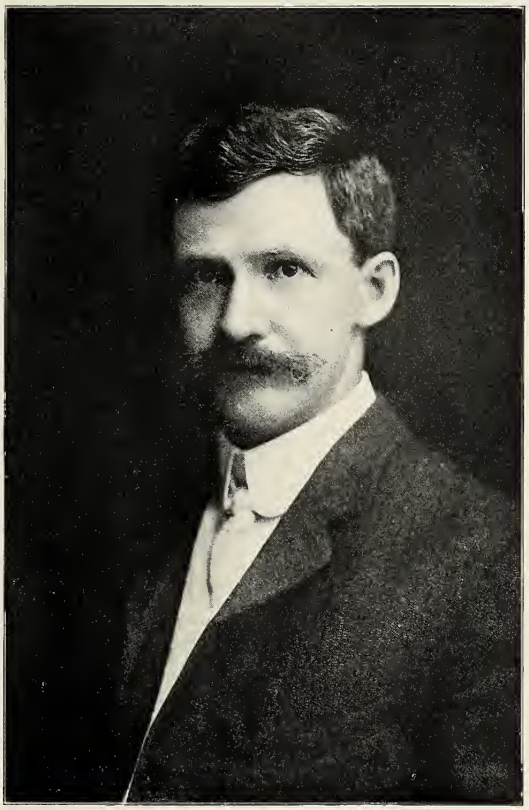


Fig. 2.— 150 lines per inch.

Taking the white area of the first column as 458.3 and remembering that the unit area for Fig. 1 is 476, the proportion of *white* contained in unit area (which is *altogether white*) is expressed as $\frac{458.3}{476}$, and the amount of black, due to the smallest black dots, as $\frac{17.7}{476}$ or 3.72 per cent.

In Table B, the background of Fig. 1 is shown to possess almost twice as much white as Fig. 2, and in the " whites," Fig. 1 has approximately one-half the white value of Fig. 2. The brilliancy of Fig. 1 is seen to be very much below that of Fig. 2.

To properly consider the value of either engraving from the basis of interpretation, it is absolutely necessary to know the tonal values of the original photograph. This should be given numerically for the quarter, half and three-quarter tones.

Having such a record it becomes easy to know from a table giving the sizes of dots, areas and percentages, whether the interpretation is a faithful one or is but an approximation.

A reproduction may be faithful enough as to recognizability, but it may at the same time lack all of the subtle charm of true tonal values that differentiate an approximation from a true copy.

If unit area is taken as 476, whole or pure white will be represented by this number; ¾ white by 357; ½ white by 238; ¼ white by 119; ⅛ white by 59.5, and no white by dead black that covers *all* of a unit square or unit area.

The dot diameters for these areas work out correctly until the point of 25 per cent of black (75 per cent white) is reached. At or near this point the dividing space between two contiguous depressions (white dots) is etched away and the law of periodic acceleration comes into play to modify the etching rate and also the interpretation. If unit area is taken and the *diameter* of a dot is calculated therefrom which shall have the *same* area, it will be found when four such dots are placed with their centers coincident with the corners of a square, whose sides are equal to the screen pitch, that there will remain an uncovered area in the center of the square, even though the dot and unit area is exactly the same. In order to cover this area the dot diameter must be *increased* so as to be the same as the diagonal pitch. The reason for this tonal aberration is found in the fact that dots of such an area and diameter as to equal unit area, when their centers fall on the corners of a unit area square, have their circumferences *overlap* at the sides of the square.

These deductions are based on *round* white and black dots. The " four crescent " dots beyond the "three-quarter" whites are amenable to a separate law.



Written for The Inland Printer.

SOME NOTES ON INITIAL LETTERS.

BY WALTER J. KENYON.

THE initial letter was the creation of the medieval monasteries, before Gutenberg had come with his press and types. All books were manuscripts, or pen-printed volumes. The monks were at once printers and artists, elaborating their parchments with an infinite patience and richly illuminating every page with a wealth of colored device in which azure, gold and crimson ran riot between and roundabout the paragraphs of the text. It was in this general scheme of page illumination that the ornate initials played an important part.

It was inevitable that the advent of the printing-press, substituting a mechanical process of duplicating in place of the hand printing of the monks, should rapidly drive out of use the old manuscript method of bookmaking, and with it the page-illuminating which had become an inseparable feature. From the beginning of the seventeenth century to the middle of the nineteenth illuminating was a buried art. Its revival was brought about by Owen Jones, in England, and the movement was greatly stimulated a little later by William Morris and his coworkers.

As in other fields of art, there are two points of view from which criticism may proceed. One takes into account an adherence to classic forms and traditions; the other sets up intrinsic merit as the prime criterion. We may consider the matter of initial letters from either of these viewpoints. One of the most ambitious books upon the subject is embellished throughout with initials which are absolutely illegible. The reader has to examine the context to determine the identity of the opening letter of the paragraph. And in several cases even this expedient leaves an element of doubt.

But these initials are derived from the Book of Kells — probably the most important medieval MS. remaining to Ireland. Representing the handiwork of the monasteries at least as early as the ninth century, they are invaluable in their historic aspect, although quite illegible and without intrinsic grace. It appears worth while, therefore, in studying, copying and admiring examples in this or any other field of art, to searchingly question one's impulse and determine, if possible, whether our appreciation arises out of a historic interest or whether it is founded upon the native excellence of the example as an art product. The unfortunate mistake is often made of commanding the pupil's appreciation for an art example which is intrinsically ugly, such, for example, as the black and white reproductions of Mona Lisa, among the pictures, or almost any bit of Egyptian ornament; without at the same time allowing him to understand that our consideration is for the historic aspect, not the innate worth. The modern didactic tendency in school art is making many opponents for itself just along this line, among both the children and their seniors — simply because they understand us to be appealing to their ideals of native beauty when in reality we may mean to address only their sense of historic values.







Fortunately, however, in this matter of initial letters, examples are not wanting in which the historic value is combined with beauty and legibility, and many of the ornate initials now in use have an ancient pedigree. The S (in P S D) exemplifies the Venetian style dating from about the thirteenth century. Notice that its essential characteristics are the square, solid field, having a border line, in which a plain and legible, but entirely graceful letter is cut. A sprinkle of foliated ornament is also cut in the field, but this is sparingly done and does not in the slightest endanger the legibility of the letter.

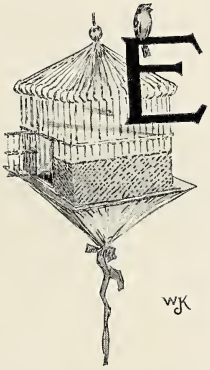
A style of which the Northern clericals were very fond is seen in P and D. Its characteristics are absolute legibility to which is added great beauty of line and proportion. The native grace of the letter is its own chief charm and the embellishing scrolls are rather inconsequent.

The old chronicles and missals inscribed and illuminated by the monks of the Middle Ages are the treasury of these ornate initials. And our appreciation for this sort of page decoration is primarily, doubtless, a historic interest.

It is a safe-enough maxim, for any didactic purpose at least, that the first duty of art is utility.

The first business of a parasol is to shed the sun; the first function of a butter knife is to cut butter; the first duty of an initial letter is to be easily read. Here, as everywhere else, our problem is "not to construct ornament, but to ornament construction." If there is one principle of art that we can set out in simple words and be certain about, it is this: that the production, whatever it is, shall first of all serve its function, and serve it fully and satisfactorily.







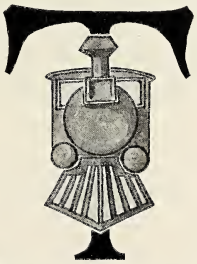
Thus we start out with the idea of a letter rather than an ornament, and its elaboration is an afterthought. In selecting the letter it is a good plan to avoid the fantastic and sensational alphabets that too often find their way into print. A well-proportioned but severely simple letter is the best starting point.

Thence we have a choice. The ornamental treatment may be graceful without carrying any special significance; just a little noncommital scroll of some sort, pleasant in its lines and aiming at nothing more than to set out the initial as something different from the rest of the text. P S D are examples of this sort. The alternative lies in the theme initial. Here the embellishment of the letter is a suggestion of the subject of the chapter which the letter opens. This suggestion may be almost purely pictorial as in D E F, or it may be somewhat conventionalized so that the reference is more reserved, as in A T S. Always, however, the rule should stand inviolable that legibility must not suffer.

Among the illustrations given E would open a writing on birds, F on the Spanish Missions, T on railroading, etc. These theme initials are a source of endless interest to the pupils; especially if devised with reference to compositions of their own writing. In turning such studies to practical use in the classroom the best results are had by devoting a lesson to the consideration and accurate copying of well chosen plain letters. The pupil should be brought to appreciate chaste and elegant letter forms over the crude barbarities which the modern signpainter loves so well. After a perception of quality in letters is thus established the illuminating is a simple and absorbing study.

In its working up, the D in D E F will serve as an illustration for all. The desert scene was first sketched out in pencil. The principal lines were then gone over in india ink (waterproof), including the double outline of the D. *Very dilute* washes of color were then applied — blue for the sky, gamboge for the sands, gray for the pyramids, a strong salmon tint for the letter and a heavy greenish-gray for the tree and the foreground figure. Gold gives a charming effect applied over the black outline of the letter and the boundary line of the sketch.







Written for The Inland Printer.

PROOFREADERS AND SPELLING.

BY F. HORACE TEALL.

EVERY man, as a man, whether he is a proofreader or not, has a perfect right to choose his own method or lack of method in spelling; but it is important in its bearing on the proofreader's peace and comfort for him to remember that, as a proofreader, he must do what others desire, whether it is his own choice or not. This does not mean that he may not advise or suggest, in certain circumstances, in respect to spelling or anything else, though of course he will not take even so much liberty except when he knows that it will not be thought impertinent.

The proofreader needs to know spelling more thoroughly than any other person, for he is the one through whom the work of preparation for printing is completed. This means that he must know just what words are spelled differently by different authorities, and which form is preferred by each authority. He commonly spells according to some one dictionary, and of course he should have that dictionary at hand for reference—a matter by no means unimportant, though frequently neglected. Employers are unjust who tell men to follow a dictionary and fail to provide them with the one they are to follow, unless they are content to allow occasional departures from the rule. Of course long experience with one system induces almost unfailing knowledge of that system, but unbroken practice with one system is comparatively infrequent.

Another injustice is done when men are simply told that they are to spell in the English way. There are differences in English (or rather British) spelling, just as there are in American. Every publisher or author with British proclivities should be made to name a dictionary as the one to be followed, or else to furnish a full list of the spellings he wants, so far as they are in any way unusual, unless he has the manuscript prepared so that it can be followed exactly.

All these things are well known by most proofreaders, but they are so vitally important that they will stand much retelling.

Another thing about spelling involves some points that should be commonly known, but are not, and that is the effort to make radical changes. Here the proofreader is entitled to have his own



PELICANS AT THE NEW YORK ZOO.

opinion, as well as any other man, but he is not specially privileged to advocate adoption of any system. As was said before, his duty is to produce what his employers wish to have. An example of bad effect of intrusive suggestion occurred in the making of a large work not long ago. A proofreader, who knew very well that certain classes of words were to be spelled in the British way, nevertheless persisted in using other spellings of some of these words and in suggesting such practice in some other cases, and the result was an unpleasant confusion that could not be desirable to any one.

Everybody knows that many English words are spelled in ways that are not immediately indicative of their sounds, and a great many people have expressed strong desire to change these spellings and make orthography phonetic. In the ardor naturally arising from their strong desire, some of the advocates of reform have made assertions of ground gained in that direction that go far beyond actuality. Almost every one who favors radical reform says that there is no doubt that it is coming, and that their ranks are increasing rapidly. If this were absolutely true, it should not be hard to prove it.

Effort toward change is nothing new; in fact, it began centuries ago, and yet there is no appreciable result. A few spellings have been simplified, and possibly a few more might be advantageously changed. But the English-speaking people as a whole have very positively refused as yet to accept any radical alteration.

Some time ago the National Education Association was said to have adopted new forms for a dozen words, which their proposer called "simplified." Last month the association met, and the following is part of a newspaper article about the meeting: "If the resolution adopted by the committee becomes as effective as it is intended, these words hereafter will be spelled thus: bizness, enuf, fether, mesure, plesure, red (for read), ruf, trauf, thru, tuf, tung, yung. The resolution asked the National Education Association to order that the twelve words be used hereafter in all its publications instead of the larger forms."

Three things may well be told about this, which otherwise might not be known. These spellings are not likely to be adopted, because when the resolution was introduced only a few members of the convention were present, and of them only half



WATERING THE MILK.
Photo by E. C. Rensberger, Stockton, Cal.

voted for it, some not voting. Some one asked how many could tell what were the words formerly changed. Only four could remember any of them (if I am repeating correctly what I was told), although it was supposed that every member of the association was pledged to use them, except that some members had made a reservation, in promising, that they would do so when they thought of it. After the introduction of the resolution, another resolution was adopted with the intention of precluding any future action on the subject by the association.

No new system of spelling has yet been offered that would simplify anything. On the contrary, everything suggested merely opens the way to such anarchy as the following, from the *Popular Science Monthly,* indicates:

"Before the epoch of dictionaries it appears not to have made the slightest difference whether a writer spelled the word *recede,* for example, according to the present accepted orthography, or whether he spelled it *receed, receede, receade,* or *recead,* all of which forms are found in manuscripts of a few centuries ago."

The New York *Sun* recently said, editorially, "The truth is that it seems a good deal harder to spell according to the reformed code than according to the old one." A day or two later that paper printed the following letters:

"Thai askt mee tu kum intu thee moovment tu teetsh Mr. Carnegie speling. Wy duzz hee kair tu lurn speling at hiz vennurabl yeerz? Josh Billings, that pyuneer, gaiv it up wile stil in the zeenith ov hiz yooth. I nevur let ennithing lyk that wurri mee. Tu spel tu wel myt injer mi orijinaliti. Wy duzzent Mr. Carnegie kut theez Shakespeare plaiz that taik from tu tu tu owers and a haff, and saiv ower preshus tym? For instunz, 'Othelo' shood not taik moar than a few wurds: 'Jellus *Othelo* (kullurd) smuthurd his wyf (wyt) Desdimoana last nyt, immeejatli nyfing himself. Notiss ov fewnural laitur.' Yoorz,

OWEN WISTER."

"Carnegie's spelling reform suggestion makes me very weary. He thinks it will simplify matters, whereas it will make spelling and reading infinitely more complicated than ever. It will take a very wise man to recognize his own language when Carnegie's crowd gets through with it, if they have their way. E. H. J."



PUTTING THE ELEPHANT OVER THE JUMPS.

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. III.— BY N. S. AMSTUTZ.*

IN order that the data which have been gathered may be of service to the processworker, it has been thought best to show graphic curve diagrams of the relation of the black and white dots for both the engravings and the press impressions therefrom, shown in the March issue.

The first of the diagrams, Fig. 7, illustrates the characteristic curves of the engravings, Figs. 1, 2 and 3, at 65, 110 and 150 lines per inch for the black and white dots, at various periods of time in the acid.

The dotted lines extending toward the left show the probable extension of the curves toward the original size of the enamel dot on the copper, before the etching was commenced, and the extension toward the right predicates the time when all the black dots would have been entirely etched away. This point would be found where the dotted lines reach the base of the diagram, as at *a* and *b*. The 150-line engraving would, under flat etching, have reached this point in about three-fourths of an hour and the 110-line plate would have advanced to a similar value in about one hour and twenty minutes.

It is interesting to note the decreasing rate of etching for the coarser screens, probably due to spent acid, on account of the larger area of metal to be removed. In the finer-lined screens this does not take place, as the black dots are much more susceptible of "topping," because of the more rapid side action of the acid.

From the diagram it is easy to approximate the diameter of the black or white dots for etching periods other than those given in table A of the March issue.

Suppose it was desired to know the probable diameter of the black dot of a 65-line screen at the end of twenty-four minutes, instead of at fifteen or thirty minutes, as given in the table, it is only required to follow the "minute" horizontal line at the top of the diagram to "24" minutes and then downward until the "65-line" curve is intersected; from which, by following a parallel horizontal line to the left-hand edge, it will be seen that the diameter is about .0041 inch. Conversely, suppose one was to demand the necessary time to leave the plate in the acid to produce a black dot of .004 inch diameter at 110 lines, it is only necessary to pass horizontally from .004 to the intersection of the "110-line" curve and then vertically to the "minute" line where one finds that seventeen minutes' flat etching will be sufficient to produce a black dot .004 inch in diameter on copper, under a given acid strength, 39° Baumé, known as "new iron," starting from an enamel dot on the copper of .006 inch diameter.

From the foregoing, it will be noted that the graphic curves shown give much more informa-

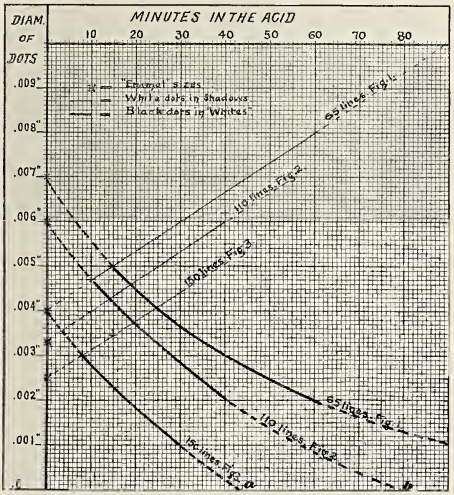


FIG. 7.—**Engraving** characteristic curves of **dot diameters** from Table A of Figs. 1, 2 and 3.

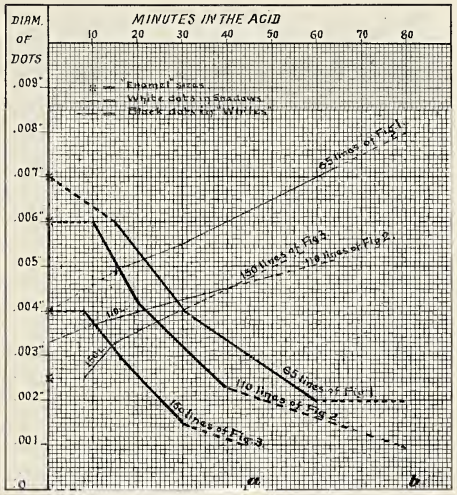


FIG. 8.—**Printing** characteristic curves of **dot diameters** from Figs. 1, 2 and 3.

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.

tion than a table can possibly convey, because it is not apparent from a table what the intermediate values are, and it so frequently happens that it is these very ones that are missing from a table and for which one finds the most urgent demand.

If the processworker knew of the possibilities of the graphic curve, he would familiarize himself with its construction and therefrom, by noting three or four positions or values of any given phenomenon, deduce the law to which it is amenable in a few minutes, without requiring hours of laborious calculations. One can put into tabular form the results of various and sundry measurements, but the bare figures do not convey any hint, except to a mathematical expert, as to the law which underlies the values given. Furthermore, should any value or condition occur somewhere between the values noted, he is entirely at sea as to the relation of the one to the other.

In order that the engraving and printing characteristics can be easily compared, the latter are shown in Fig. 8. In comparing these two diagrams, it is interesting to note the divergence of the printing curves from those representing the characteristics of the engravings. Such a comparison at once shows the effects of the overlays, as well as the spreading action, due to the presswork and ink conditions. If the overlays followed the tonal relation of the engravings, the curves of Fig. 8 would be symmetrically disposed in relation to those of the engraving, Fig. 7, showing a *uniform* modification.

If this was followed consistently, then the curves of Fig. 8 would be located proportionately higher on the diagram for the black dots and lower for the white ones, as the action of the presswork is to *broaden* the black dots and *narrow* the white ones.

Reasoning backward, from a given size of printed black or white dot, knowing the spreading effect of the ink and the rate of side action of the acid, it becomes relatively an easy matter to predicate the size of the "enamel" dots on the copper, and therefrom determine their size in the negative before and after intensifying or before and after clearing the same.

It then simply remains to determine the *rate* of side action of the intensifying and clearing solutions to know positively what size of dot to project onto the ground glass of the camera to hold the best working relation throughout all of the successive steps of the process.

Knowing the kind, or rather size, of printed dot that is best adapted for the specific interpretation at hand, places the processworker upon fundamental ground so that he can then adjust the screen and size of aperture to produce the size of dot that will, after passing through the modifying influences of development, intensification, clearing, printing on the metal, side action in etching, overlays, spreading action of the ink and surface to the paper, meet the *final* requirements of a finished result.

The surface of the paper should be, so to speak, "passive," in that no special modification of the tonal values takes place, due to its texture. Coated and highly surfaced paper eliminates this for the better grades of printing, but as the half-tone process is forcing its way to the front in daily newspaper work, the modifying effect of the surface texture must be recognized and proper allowances made therefor in all of the subsequent steps of the process.

The spreading of the ink in printing, to a degree, neutralizes the effects of side action in the acid bath, but its modification takes place at a *uniform* rate away from the edges of all printing surfaces or points, regardless of the size of such surfaces or points. If the spreading action was proportional to the variation in area of the same,

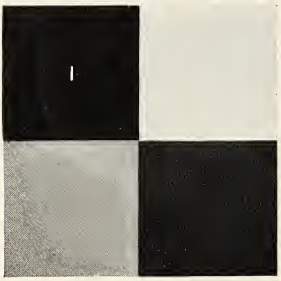


Fig. 9.— 10 minutes.

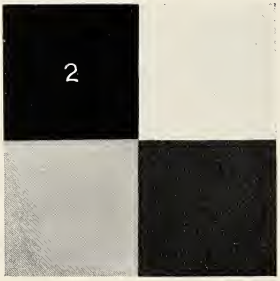


Fig. 10.— 20 minutes.



Fig. 11.— 40 minutes.

SPECIAL 110-LINE TEST ENGRAVINGS (FLAT ETCHINGS).
Data are given in Table F and Figs. 12 and 13.

then the effect of side action in the acid would be neutralized more consistently and to a larger degree.

These remarks apply to inks that are not of the "double-tone" or highly viscid order. When inks of this kind are used, the smallest white dots of the shadows (*white* when printed with single-tone ink) become filled with ink by reason of the viscosity of the ink, causing the color particles to bridge over the depression, by drawing the ink away from contiguous surfaces, forming a *thickness* of pigment that is greater than that left on the adjacent portions of the printing surface by the ink rollers.

the process. Fig. 8 illustrates the extent of tonal aberration due to this cause. It is contended that when changes in effects are produced, which cause the reproduction to be a mere pretense, it is time that the fundamentals are studied and a setting of stakes made that shall for all time remove this important art from "rule of thumb" domination.

The effects of true overlay interpretation should be the retention of all the tonal values, harmonizing with the qualities of the subject being reproduced; and yet how little is the underlying law of unit pressure per unit area understood? When the time does come that the make-ready will be constructed in harmony with the variable printing

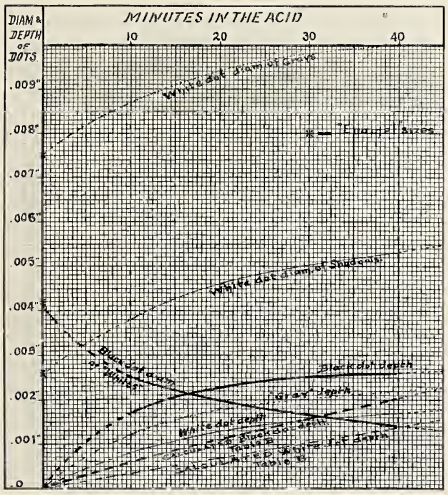


Fig. 12.—Special 110-line ENGRAVING.
Characteristic curves of **dot diameters and depths** from Table F and Figs. 9, 10 and 11.

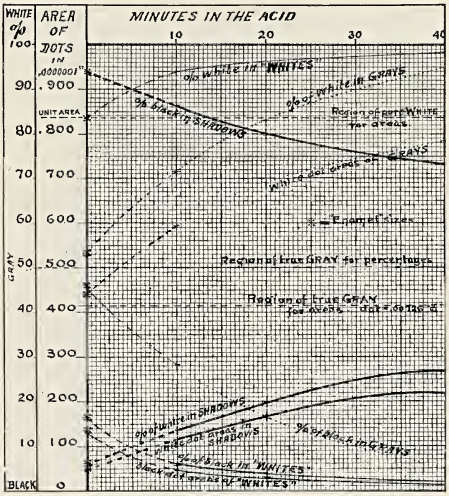


Fig. 13.—Special 110-line ENGRAVING.
Characteristic curves of **dot areas and percentages of white and black** from Table F and Figs. 9, 10 and 11.

Because a greater physical thickness of pigment is found in the depressions, these will appear *darker* than the surrounding areas and thereby produce a double-tone effect which can be utilized to considerable advantage if the press and rollers are exclusively used for double-tone purposes. Paradoxically, the ink applied to the black dots or type faces appears a maximum black.

The law of interpretation of the screen, etc., will not be the same as when single-tone ink is used. Fundamentally, it can not be the same, hence special treatment is required.

The whole subject is so closely bound up with the modifying effects of overlays and presswork, which, on the basis that "no chain is stronger than its weakest link," neutralizes to a marked degree the care and attention that may be given to the dot-relation in any of the previous stages of *areas*, the field will be emancipated from the cloud of uncertainty that now overshadows it.

It is not too much to expect that wide-awake workers will give stimulus to the scientific investigation of this subject in all of its interrelated phases.

The statement is ventured that, given a specific subject having tone values ranging between maximum white and maximum black, a *compensated* screen negative and a flat etching, without staging, made therefrom, the printed result will show more faithful *tonal* interpretation than a "staged" engraving, because in staging a large and variable personal equation is introduced. We have come to look on results that are highly keyed as to the whites as a desirable attainment, and so they are, providing the middle tones are not thrown out of relation and sacrificed on the altar of *pure whites*.

In order to further study the scope of half-tone interpretation, Figs. 9, 10 and 11 have been made so as to show this value under ten-minute, twenty-minute and forty-minute periods of time in the acid. These are made up of four one-inch squares, and are numbered respectively 1, 2 and 3. The squares that carry these numbers are dead black, the ones directly beneath are the grays, the ones diagonally opposite the shadows and those to the right are the "whites."

True tonal interpretation may be represented by a *straight line* "curve." The basis of comparison is a unit area comprising the square of the pitch, or an area 1-110 inch on each side, which encloses .0091 by .0091, equaling .00008281 square inch.

In the dead-black portions, obviously, the whole area is black; in the pure whites the whole area *should* be white, but the evidence of a black dot persists. This can be brought to such a minute dimension, however, that the very small per cent of black, in what would otherwise be pure white, is negligible for practical work. The middle tone value will come when one-half of unit area is black and one-half white. In the three-quarter region, away from the white, seventy-five per cent of the area will be black and twenty-five per cent white, and going in the opposite direction one finds the reverse, or seventy-five per cent of white to twenty-five per cent of black. Linking up these points, one finds a straight line connecting all of them.

It is the aim of the half-tone worker to show such an *interpretation* in the finished print, but the great average of work does not come as close as it might to these ideal conditions because, as already stated, of the many modifying influences encountered between the subject itself and the final print (not the engraver's proof).

However, if one does not seek for fundamentals and a familiarity with underlying laws, one can not reason intelligently from causes to effects, so it behooves every worker to strive for greater proficiency in his chosen craft by working to a purpose.

Figs. 9, 10 and 11 show dead blacks, the *smallest black* dots of the "whites," the *smallest white* dots of the shadows and an intermediate gray tone. From these one may judge as to the relation that interpretation bears to the printing areas, and how close the theoretical requirements are met. One should not find a coincidence between the engravings themselves and the theoretical "curve," because allowances must be made for the spreading action of the ink and paper conditions in printing.

These engravings further show the rate of acid action in relation to depth of etch, as each one has been measured and the results are shown in the curves of Fig. 12.

Table F summarizes the data of Figs. 9, 10 and 11 for 110-line screens. In this table the original characteristics of the dots as produced in "enamel" on the copper are first given for the black dots in the "whites"; the white dots of the grays, and the white dots of the shadows and the succeeding characteristics of similar tone-values at the end of ten-minute, twenty-minute and forty-minute flat etches.

In order to simplify the numerical values for the areas, they are given in *ten-millionth* parts of a square inch; thus the area of a black dot under ten minutes etching is given as 49.1, which actually reads .00000491 square inch.

The curves in Fig. 12, in addition to the diameter characteristics of the white and black dots of the "whites," grays and shadows, for various periods of time in the acid, also show the measured depths of the etching action for the same tonal values. In addition, two dotted curves are shown,

Table F.— Diameter, area, depth, etc., of engraved dots for 110 lines per inch, shown in Figs. 9, 10 and 11; also in diagrams, Figs. 12 and 13.

KINDS OF DATA.	"Enamel" Condition.			Condition of Dots at End of								
				10 minutes.			20 minutes.			40 minutes.		
	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows
	●	○	○	●	○	○	●	○	○	●	○	○
Diameter	.0042	.0075	.0026	.0025	.0087	.0038	.0020	.0094	.0046	.0014	.0100	.0053
Area	138.5	441.7	53.1	49.10	594.5	113.4	32.0	693.9	166.2	15.4	785.4	220.6
Depth				.0017	.0012	.0008	.0023	.0018	.0013	.0026	.0022	.0017
% white	83.25	53.34	6.41	94.07	71.80	13.70	96.14	83.70	20.10	98.14	95.86	26.70
% black	16.75	46.66	93.59	5.93	28.20	86.30	3.86	16.30	79.90	1.86	5.14	73.30

"White," or unit area, @ 110 lines per inch = .0091 × .0091 = .0000828 square inch. In the table areas the ciphers are omitted, and to conform therewith, unit area becomes 828.

● = smallest black dots in "Whites." ○ = white dots in Grays. ○ = smallest white dots in Shadows.

which illustrate the *estimated* depth for various etching periods that were given in Table B of the March issue; these curves relate to the white and black dots only.

Fig. 13 shows the area and percentage curves, the values of which are tabulated in Table F. It is extremely interesting to note the interrelated changes that take place in the dimensions of the engravings under variable time periods of etching. From these there has been deduced the existence of a *second acceleration.* This law is applicable to the grays from the moment a series of white dots, A, of quadratic relation (Fig. 15) have reached such an enlargement of border A^1, shown at *b*, as to break down the wall of metal, b^1, which prior thereto separated and confined the acid action to four disconnected but contiguous depressions, A (white dots). The form of black dot will now approximate the assembling of four crescents with their convex portions meeting each other.

The horns of the crescents will unite in pairs to form *pointed* projections, *a*, reaching into the space of acid activity where the acid will attack them from *both* sides simultaneously, so as to cause them to recede toward the center of the unetched area. The concave portions of the crescents will not recede, at a^2, toward the center of

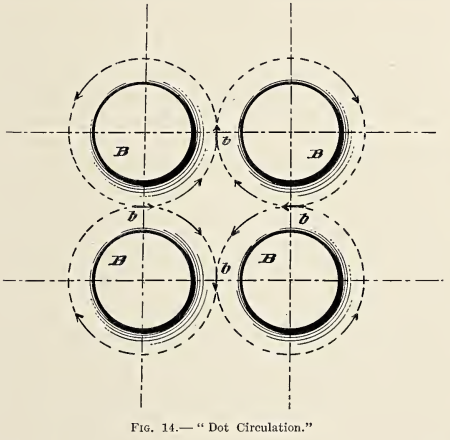


Fig. 14.— "Dot Circulation."

the dot as rapidly as the horns do, over the distance a^1, hence the dot area is not reduced uniformly, but at a differential rate, thereby causing a second acceleration which if not compensated for by special dot formation through screen distance and diaphragm outline, will nullify the middle tone translations, to the great perplexity of the operator.

These horns, as stated, recede faster than the concave portions, and in consequence the area is reduced more rapidly per unit time so long as they exist than when the remaining dot has attained a square or circular form.

The other law that is predicated by the investigations so far made is the differential rate of etching *around* the black dots of the "whites" in contrast to that *within* the white dots of the shadows. A name is ventured for each phenomenon. The first may be called periodic acceleration, and the last, dot circulation. In order to

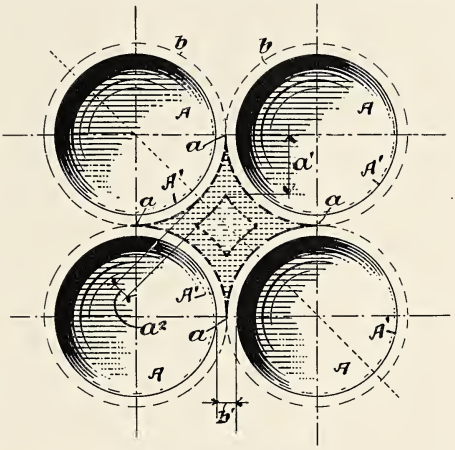


Fig. 15.— "Periodic Acceleration."

illustrate these, Figs. 14 and 15 are used. In Fig. 14 four black dots, B, are shown; around these arrows are drawn, indicating the possible direction of acid activity *around* the dots, when there is little rocking and no brushing in the etching tub. At the points, *b*, midway between the dots, arrows are shown pointing in the same direction, indicating a harmony of the whirl around any one dot to that of two adjacent ones. The interaction predicated is similar to that of two pairs of intermeshed toothed wheels, wherein the rotation of any one imparts rotation at the same velocity to the other three of a given set of four. Ignoring friction, any number of wheels so connected might be set in rotation by moving any one, and the axis of each wheel would represent a black dot of the "whites."

(To be continued.)

AN IMPORTANT DISCOVERY.

I am a constant reader and admirer of your excellent publication. I had the pleasure of discovering it about a year ago in one of the news stores in town here. I have grown so in the habit of liking it that lately I have taken great pride in showing it to all my friends. To be without THE INLAND PRINTER for a month would be a crime, hence my reasons for not wanting to be found guilty. — *Louis M. Pawlett, Bridgeport, Connecticut.*

Written for THE INLAND PRINTER.

THE ORIGIN OF BOOK CATALOGUES.

BY N. S. HUNTER.



HE invention of printing by Gutenberg in 1438 has been productive of the widest and most far-reaching developments of any single invention the world has seen, and the "art preservative," whose foundation was laid under such adverse circumstances, has grown from a pigmy into a veritable giant.

The tumultuous times when this invention received its birth were not much of an inspiration to the perfecting of processes or systems of any kind that did not have for their immediate end their utility in warfare—external and internecine. In the midst of the Hundred Years' War, which ended fifteen years later, exiled from his native environment, it is marvelous that the growth of invention's stem was sufficient to prevent its withering from lack of ordinary nutrition. The stock was hardy, the will was determined, and from out of it all we have much to inspire us to efforts of persistent and continuous application.

Two German printers, Conrade Sweinheim and Arnold Pannarz, were for some time the only printers in Rome, and a stock of books accumulated in their warehouse until it reached 12,475 volumes. The materials were costly and customers not very numerous, so in their discomfiture they were obliged to solicit support from Pope Sixtus IV. in 1472, only thirty-five years after the invention was born. Their lamentable petition is inserted in Fabricius's "Bibliotheca latina," Vol. 3, pp. 898, published in Hamburg in 1772.

This time of adversity for these two enterprising printers who left their native land occurred but four years before William Caxton, the father of the English press, settled in Westminster, London, and but two years before Caxton's first book in the English language was printed.

In the earliest days of the art the printer was his own bookseller and capitalist as well. Later on the selling part of the business was given up. A bookseller of prominence, John Rainmann, who resided in Augsburg, however, retained the selling in preference to the printing and typefounding which he was at first engaged in. It was from him that Aldus, who founded the Aldine press at Venice, in 1490, secured his type.

Thus printing gave birth to the new trade of bookselling, which was chiefly established in Germany at Frankfort-on-the-Main, where (particularly at the time of the annual fairs) large booksellers' shops were opened on a certain street, which therefrom took the name *Book street* (*buch strasse*).

An Augsburg bookseller, George Willer, frequented the Frankfort fairs and found it of great assistance to print for distribution at each fair a *catalogue* of all the new books, giving their sizes and the name of the printers.

A Catholic clergyman, Le Mire, who was born in 1598 and died in 1640, says in his works that *catalogues* were first printed in 1554.

Frankfort being a city of considerable commerce, it easily became the center of the book trade and in consequence was an important factor in the Renaissance period of the Reformation, which commenced in 1517.

Willer's catalogues were issued by Nicholas Bassaeus, a printer of Frankfort, until 1592.

Of course it is not to be supposed that other booksellers did not also utilize this means for drawing trade and disposing of their books.

Some of the old *catalogues* were still in existence as late as 1817, among which was "Catalogus novus nundinarum autumnalium Francofurti ad Moenum anno 1587."

These quarto *catalogues*, curiously, were not paged, and they were arranged so as to place the Latin books first, beginning with the Protestant theological works (perhaps because Willer was an adherent of the founder of the Reformation); then the Catholic books were listed; and thereafter, jurisprudence, medicine, philosophy, poetry and music.

In a second division, all the German books were named, but the same arrangement was carried out.

A general Easter catalogue was issued in 1604 under specific permission of the government, with this inscription:

"Francofurti permissu superiorum excudebat Joh. Saur."

In 1600 Abraham Lamberger, with the permission of the elector of Saxony, printed at Leipzig a catalogue of all the books on sale in the *buch strasse* at Frankfort, and also of those published at Leipzig.

After Willer's death, the catalogue was published in Liepzig by a bookseller named Henning Grosse, and by his son and grandson.

The authorities of Frankfort caused several regulations to be enacted respecting catalogues, placing the business under the supervision of the censors. After this no further catalogues were printed there and the Leipzig printers thereafter continued their publication.

The bookshops of the famous *buch strasse* were converted into taverns, according to Joh. Adolph. Stock, in "Frankfurter Chronik," and the foundation of an important phase of bookcraft was centered in Leipzig, which place has proudly upheld her past traditions from then to the present, surely a long and enviable record.

Written for THE INLAND PRINTER.

THE MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

NO. III.— BY PHILIP ZACE.

SIMILAR results are often produced by different means in machines of various makes. It is hardly necessary to give detailed comparative descriptions of lesser or auxiliary parts, so long as the primary movements are essentially the same. The operator who has a thorough knowledge of the theory of folding-machine mechanism, as thus far explained, can soon apply his practice on a machine of one manufacture to the successful operation of a machine of another make. A slight difference in the movement of a cam-wheel, a gear or a lever will be readily understood by the attentive operator. In the general run of work it is often desirable to give the sheet its final fold before it reaches the last set of fold rollers, and in other cases, such as four-fold work, the sheet must be operated upon by the entire folding mechanism. The adjustments necessary in making these changes in several classes of machines are important and readily understood. In the Chambers folder, for instance, the sheet is carried up to the final fold rollers in much the same way as in other machines. This part of the mechanism and its

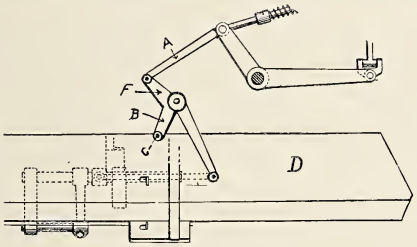


FIG. 17.

adjustment have been described in previous articles. After the sheet arrives at its position over the next to the last set of fold rollers, it is tucked between them by the folder blade, in the usual manner. If the last fold is to be eliminated, as in three-fold work, the tapes running over the last set of rollers are not used. In some work the tapes may be pushed to one side and tied out of use and out of contact with the gears. If the folded sheet is so large that it extends over the entire width of the third-fold rollers, the tapes will have to be cut at the seams and removed. The fourth folder blade should be disconnected. Finally the packing box must be adjusted to properly receive the sheet from the third-fold rollers. To do this the operator must disconnect the pitman *A* from the arm *B*, by withdrawing the pin *C*, shown in Fig. 17, an illustration of the plunger-actuating mechanism. Then swing the packing trough *D* around on its pivot (the post 9 in Fig. 18) to a position at right angles to its previous position. Now connect the pitman *A* with the other arm *F*, as seen in Fig. 17. By making these adjustments the plunger can be properly reciprocated in either position in the packing trough.

As the batches of sheets to be folded and packed may vary in size, it is desirable that the

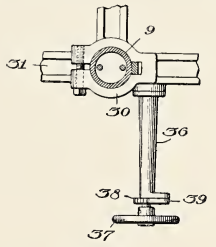


FIG. 18.

trough be capable of being adjusted vertically, in order to insure the proper reception of the sheets as they descend into the trough, without affecting the operation of the plunger-actuating mechanism. This adjustment should be made as follows: The post 9 is adapted to turn in a bearing 30 of a crossbar 31 of the frame of the machine. By turning a hand-wheel 37, the post and the packing trough may be lowered, being maintained at any adjustment by means of a ratchet-wheel 38 and a pawl 39. As the pitman *A*, in Fig. 17, moves on the rock-shaft rod, when the trough is moved vertically, it is capable of doing its duty when the trough is in any adjustable position. This applies to the Chambers.

To dispense with the fourth fold in delivering a signature of sixteen pages, on a Dexter single-marginal machine, the adjustment is made in the folder blade and its mechanism, instead of removing the fourth-fold tapes, as in the Chambers.

Run the machine forward until the fourth-fold blade is raised as high as it will go. At this point the cam-roller will be out of the groove in the cam-wheel. Attach the extra collar for the purpose to the end of the spring rod and shove it up to the frame of the machine; tighten the set-screw and the knife will remain inoperative. Now move the parallel thirty-two stop-gage up close to the parallel thirty-two fold rollers, which will tuck the sheet through them and thus deliver the sixteen-page signature into the packing trough.

The adjustment of the plunger mechanism of the Dexter revolving packing box is essentially the same as in the Chambers. The main difference is

in the raising and lowering device. The Dexter hand-wheel raises and lowers the trough with a screw, while a rack (previously described) is used in the Chambers. To fold a sheet of parallel sixteens, with one or more on, on a Dexter single-marginal jobber the operator must lock the third-fold knife, as above described, and take out the third-fold stop, so as to permit the sheet to travel to the parallel fold stop. Idlers must be used on the tapes to make the sheet travel true and even. The idlers are grooved to fit the top rod to which they are attached with thumb-screws.

The operator must also use great care in the adjustment of the second-fold rollers. If the sheets are not traveling through these rollers properly, they are liable to work away from the second-fold stop, or one end of the folded sheet may hit the stop first and either buckle it or throw it out of register. The folded edge of the paper must strike the stop squarely to produce a perfectly folded signature. When trouble of this kind is experienced, it is usually attributable to the improper adjustment of the second-fold rollers, the folder blade, the tapes or the rods. The rollers might be open too much on one end. The adjustment should be made with a pin-wrench. Don't close the rollers too much or they will cut the threads at the seams of the tapes. If the above trouble is caused by the folder blade, it is because it is set too high or too deep between the rollers. To test the blade the operator should run a sheet through slowly. If the sheet does not go through perfectly at low speed the operator should lower the knife a trifle. The knife must be raised if it sticks when the machine is running at full speed. You can tell this by the noise or jar produced by the withdraw of the blade or by the markings of the knife on the sheet. In some cases the blade will tear pieces from the folded edge of the paper. If the operator carelessly sets the knife too deep, the jar may break the arm of the blade. It should be the operator's first duty when he takes charge of a machine to test all the folder blades before he starts the mechanism. The first folder blade should be set reasonably high, so the sheet will pass through nicely. Then set all the other blades a little high and run a sheet through at very slow speed. Lower each blade gradually, after each succeeding sheet passes through, until the adjustment is just right. The tapes should be about two inches away from each second-fold roller. If too close they are liable to work the sheet away from the stop as it passes through the rollers, or in other ways interfere with perfect folding. Don't allow the rods to be too close to the rollers or else they may cause the trouble.

To fold a parallel thirty-two, one or more on, put the three-fold stops back in their proper places and unlock the third folder blade. This allows the sheet to travel to the parallel thirty-two stop where it receives an extra fold. Put an extra set of idlers on the fourth-fold tapes.

The packing box does not require readjusting in changing the folder from a straight sixteen to a parallel thirty-two. The box remains in the same position to receive either of these signatures. The box must be reversed for regular four-fold work.

Signatures of twenty-four pages are folded the same as regular four-fold work. If the machine is changed from regular thirty-two-page work to twenty-four-page work with pages of the same size, very little readjustment is required. For a

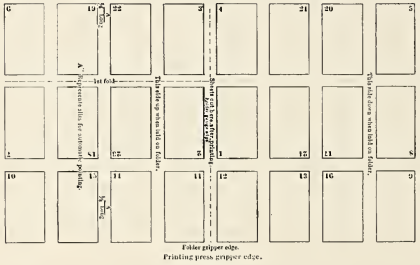


Fig. 19.

twenty-four-page signature, three-fourths of a full four-fold sheet is fed into the machine. Therefore the first crease in the paper is made in the margin which divides a section of eight pages to the left from a section of sixteen pages to the right. The remaining folds are the same as in a straight thirty-two. The tongues in the feed-board, the guides, and the rubber on the drop roller, must be changed to conform with the size of the sheet. The slowdown must be moved over to engage the paper and the kicker must be advanced to the edge of the sheet. The layout for this form is shown in Fig. 19.

Twelve-page signatures are folded in the same manner as three-fold work. The adjustment of the machine from a sixteen to a twelve is relatively the same as the adjustment from a thirty-two to a twenty-four.

Two-fold work requires an extra packing trough, which consists of a square box mounted on the side of the machine, as illustrated in Fig. 16, of the first article of the series. The box is stationary and does not require adjusting. The movement of its plunger is controlled by the same mechanism that actuates the plunger in the adjustable trough. When the stationary trough is in use the rod beneath it is connected to the stud under the adjustable trough, as shown in Fig. 16. The operation must also retime the cam which moves the packing box mechanism in two-fold work.

Written for THE INLAND PRINTER.

AN APPEAL FOR APPLIED SCIENCE IN DAILY ROUTINE.

BY A. S. N.

THE entire domain of nature is a standing appeal to orderliness and system. It is a popular misapprehension to think of the scientific consideration of any subject or treatment of any phenomena as belonging wholly to the technical school or to the college professor. To be scientific is to be orderly; to *classify* one's observations or deductions is to bring into play system. General knowledge is not scientific because the various aspects of such knowledge that bear on *similar* conditions are not, so to speak, sorted out into major or minor divisions.

To the practical printer it will be apparent that a typographical "pie" is neither orderly nor systematic. So long as the individual types of the same character are not sorted into their respective compartments, chaos reigns and the potentiality of the individual symbols is lost in the heterogeneous mass of "unclassified facts."

As soon as the symbols of the same characteristics are assembled into boxes, the benefit of *applied* science — classification — is at once apparent, and it requires no specious reasoning to prove the advantage. Just so with observed phenomena or the possession of miscellaneous knowledge. So long as the details of either are general, there is no coördination between their steps that are *similar;* hence there is no possibility to intelligently analyze the successive modifications or varying phases of such knowledge or phenomena, and the whole result is unscientific, because there is no *classification* — no sorting out, or bringing the same deductions or things together.

Suppose the engraver finds it desirable to use an untried formula in his branch of the art and there has been a misprint or error in copying the data, he is liable to spend much time and worry in getting to the bottom of the thing. If he had carefully *noted* his first trial and similarly *noted* his second attempt and successively *noted* the results of other trials, he would be in position to reason from cause to effect.

It is a mistaken idea to fail to make *manuscript notes* because they might be considered an evidence of a poor memory. The habit of making notes and subsequently classifying them will make system — science — out of the most ordinary data.

If one approaches any duty with an analytical mind, the performance of such duty becomes a real pleasure, and who shall say that the person who has exercised his intelligence, made alert his powers of observation, and summarized the advantages and disadvantages of the personal method employed is not greatly in advance of the person who makes of himself a mere automaton?

If, under certain conditions, a given effect is observed, under other conditions a certain modification of effect is noted, and under a further change in condition a third effect results, an analysis of these will deduce a very fair approximation of the law that underlies the problem; whereas, to be simply conscious of the existence of changed conditions without analyzing the *relation of one effect to the other,* the general information is not in such shape as to be available for future use.

It is believed that more system and order in the darkroom, print-shop or office would conduce to greater precision as to individual methods and lead to the upbuilding of a truly scientific method in the performance of daily duties. A word of warning will not be amiss. A slavish following of "system," without considering *results,* will negative the great advantages that otherwise will accrue to the person who may become master of any variable conditions.



A PERSIAN DENTIST.



A HONEYMOON OUTING.

Drawn for THE INLAND PRINTER by F. DeF. Schook.



(Entered at the Chicago Postoffice as second-class matter.)

A. H. McQUILKIN, EDITOR.

Editorial Contributors — ARTHUR K. TAYLOR, F. W. THOMAS, EDWIN B. DEWEY, W. B. PRESCOTT, R. C. MALLETTE.

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ADVERTISING RATES

Furnished on application. The value of THE INLAND PRINTER as an advertising medium is unquestioned. The character of the advertisements now in its columns, and the number of them, tell the whole story. Circulation considered, it is the cheapest trade journal in the United States to advertise in. Advertisements, to insure insertion in the issue of any month, should reach this office not later than the eighteenth of the month preceding.

In order to protect the interests of purchasers, advertisers of novelties, advertising devices, and all cash-with-order goods, are required to satisfy the management of this journal of their intention to honestly fulfil the offers in their advertisements, and to that end samples of the thing or things advertised must accompany the application for advertising space.

THE INLAND PRINTER reserves the right to reject any advertisement for cause.

Single copies may be obtained from all news-dealers and typefoundries throughout the United States and Canada, and subscriptions may be made through the same agencies.

Patrons will confer a favor by sending us the names of responsible newsdealers who do not keep it on sale.

FOREIGN AGENTS.

W. H. BEERS, 170 Edmund street, Birmingham, England.
W. C. HORNE & SONS (Limited), 5 Torrens street, City Road, London, E. C., England.
JOHN HADDON & Co., Bouverie House, Salisbury square, Fleet street, London, E. C., England.
RAITHBY, LAWRENCE & Co. (Limited), Queen street, Leicester, England.
RAITHBY, LAWRENCE & Co. (Limited), 1 Imperial buildings, Ludgate Circus, London, E. C., England.
PENROSE & Co., 109 Farringdon Road, London, E. C., England.
M. P. MCCOY, Phoenix place, Mount Pleasant, London, W. C., England.
WM. DAWSON & SONS, Cannon House, Breams buildings, London, E. C., England.
ALEX. COWAN & SONS (Limited), General Agents, Melbourne, Sydney and Adelaide, Australia.
COWAN & Co., Wellington, New Zealand.
F. T. WIMBLE & Co., 87 Clarence street, Sydney, N. S. W.
G. HEDELER, Nürnbergerstrasse 18, Leipsic, Germany.
H. CALMELS, 150 Boulevard du Montparnasse, Paris, France.
JOHN DICKINSON & Co. (Limited), Capetown and Johannesburg, South Africa.
A. OUDSHOORN, 179 rue de Paris, Charenton, France.
JEAN VAN OVERSTRAETEN, 8 rue Joseph Stevens, Bruxelles, Belgium.

EDITORIAL NOTES.

LET the boss be what he may, his wages demand an honest return. To give him less is theft.

IT is no indication of a man's worth that he is arrogant and overbearing, but merely a proof of too much ego in his cosmos.

FOR an office doing jobwork, and invariably doing it well, there is no cheaper or more effective advertisement than an artistic trade-mark.

CONTENTMENT comes from work well done. The office cynic who derides the effort of the man who works to give a fair return for the wages he receives is a poor thing after all.

TRADE-UNIONISM found its birth in the open shop. Is there any hope that conditions may be made whereby the union of workmen for other than social intercourse will be without meaning?

OVERZEALOUS and inefficient officers of local trade unions do more to create distaste for the name of organizations among workmen than all the fulminations of the forces opposed to the trade and labor element.

THE INLAND PRINTER again takes occasion to warn the warring factions in the present open-shop and eight-hour fight that no terms that are forced to a distinct disadvantage of either side will bring abiding peace.

"I WANT the use of the brains of the men I hire," said a printer. "In making terms with me on shop usages and rules we may disagree, but I look on both sides of the question involved and I have never failed yet to get a fair adjustment. But I avoid ultimatums."

PERSONAL antagonisms do much to hold back adjustments between employers and their employees. It is not always the thing demanded or requested that awakens opposition and resentment. It is frequently the way the request or demand is preferred.

WAGE scales are made on no fixed basis, the workmen get much or less according to their strength and the personality of the men who own the offices. Towns fifty miles or so apart have an appreciable variation in the wages and hours. This discrimination is undesirable both for the workman and the employer. Upon what basis should a wage scale be made?

CLEAN up your own orders and write in all the facts. Put all the information on the ticket. Don't put in figures for months but write the month in, and write plainly. The time of the other fellow who has to read it may be more valuable than yours. Keep your egotism in subjection and remember that your employer's money and your welfare will come from the shop moving smoothly in all departments, so don't sprinkle any of *your* sand in the bearings.

STODGY little boys with dirty hands and dirty faces dressed in frowzy uniform bring back the pretty sketches left with the engraver — broken, defaced and smeared. Is it that the art-craftsman acquires a contempt for the things beautiful through daily association, and if so what can be done to awaken his appreciation, if not of the glory of art, then of ordinary property rights? In other words, what will make him return the copy clean and properly wrapped?

NO FORM of technical education can prove of direct benefit or of far-reaching influence which does not also include actual shop practice. THE INLAND PRINTER is practically testing its theories in this work. There are enough printers, but not enough printers developed to their capacity in the trade. In the Job Composition Branch of the Inland Printer Technical School the principles of decorative or display printing is lectured on by Mr. Thomas Wood Stevens, of the Chicago Art Institute, two days each week, and the results of his teachings woven into practical work by the students will be shown in these pages each month.

THE irritating question as to what extent printers are responsible for cuts, plates and other property left in their possession, is again in the English courts. In this instance, when the owner of valuable plates wanted them they could not be found. The printer alleged he had taken the same care of them as of his own, but could not trace them, and there was no allegation of fraud. This presented a clear case of responsibility, and the judge decided for the admittedly careful and honest printer, who acted as warehouseman gratis, but conceded that he did so with some hesitation, which provoked a notice of appeal. In the mind of the *Printers' Register*, there is but one safe course for a printer to pursue, and its advice, applicable on both sides of the Atlantic, is that "they should give definite notice that if such things are left in their charge it must be at the customer's risk." Come to think of it, is it the practice in any other business to assume responsibility for the preservation and care of a customer's property, without charge?

TRADE EDUCATION.

THE necessity for a system of education supplemental to that which can be obtained in shop or office in the making of mechanics and artisans is being generally conceded. Our contemporary, the *National Printer-Journalist*, commenting on the subject, says: "America is twenty-five years behind Great Britain and fifty behind Germany and France in industrial education," and allows it has proven immensely beneficial in those countries. An English writer recently, chafing under a criticism of the typography of his country, based on the work of ten or fifteen years ago, repudiated the justice of the comparison, claiming that in the meantime so much progress had been made in every department of the art, the imports of printed matter had dwindled astonishingly. And among the contributing elements he did not hesitate to put technical education and its influence in first place.

New conditions require the adoption of new methods, and specially so where youth is affected. For a variety of reasons an opportunity to learn a trade does not make so strong an appeal to the same class of boys, relatively speaking, as it did a generation ago. In the shop the trend is toward specialization, which makes it exceedingly difficult for one to thoroughly master his trade. The curriculum and atmosphere in the elementary schools are not calculated to fit a scholar for an artisan's life, or make him yearn for it. These obstacles can be overcome in a great measure by an intelligent change in the educational system before and after leaving school.

This has been recognized by the more progressive employers of labor and students of industrial conditions for some time, and now the necessity for meeting changing conditions is being discussed by the educators. For long the school system of this democratic country has been so arranged that it was made cheap and easy for the aspiring Blackstone to equip himself for the bar, the budding physician to fit himself for his career, and encouragement of this form has been extended to cover a growing number of professions. No such consideration has been shown those destined for a career as mechanics or artisans. They were not helped to develop their minds in the manner which would best serve them in after life. It is not too harsh to say the public school course seemed to be designed on the theory that if any pupils were so unlucky as to follow trades for a livelihood, it was the part of wisdom to keep them in ignorance of their horrible fate.

At all events, the boy who essays mastering a trade finds he has learned much at school which is worse than useless and has to "dig up" an immense amount of information in a haphazard

fashion which might have easily been systematically and more thoroughly imparted at school.

As has been mentioned, the educators are taking notice of this shortcoming in their field; perhaps moved thereto by the clamor for efficient workmen. The Forty-third University Convocation of New York for the first time in its history discussed the relation of education to commerce and industrialism. Without exception the speakers made pleas for a system of education which would better fit the average man or woman to make the most out of life. Prof. James E. Russell, dean of Teachers' College, Columbia University, in reviewing criticisms of our educational methods emphasized the incongruity of our lauding Tuskegee and other institutions for the practical training of the negro, while we do nothing for the white boy. Millions of the latter are turned out every year to do the work of the nation, but the schools care not a whit as to how the work is done — well or ill. To the Professor's mind, at present education is designed to serve the one bright boy who somehow gets ahead "despite our instruction, perhaps," rather than the ninety and nine who stand in need of all the extraneous aid that can be possibly tendered them. In this way he who wants to be a soldier, lawyer, doctor or teacher, etc., finds handsomely endowed schools to help him perfect himself, while he who would be a business man or artisan has few places wherein to develop his faculties or his hands. If the production of wealth is, as has been said, the one insatiable demand of an advancing civilization, our educational system is in sad need of repairs.

Professor Russell said that the Republic was a social democracy and it was in accordance with our notions that all should have equal opportunities, which accounted in great measure for our educational system, providing the same elementary training for the embryo hod-carrier and drayman as for the coming light in the medical or legal profession. But there must be a change. "How can a nation endure that deliberately seeks to rouse ambitions and aspirations in the on-coming generations which in the nature of events can not possibly be fulfilled?" asks the Professor. If this serious defect in our educational system is one of the prices we pay for the sentiment in the trite and flippant assertion "every boy may be President," then the dance is costing us dear. But it is far more likely the indifference to practical education has its origin in the comparatively easy economic conditions which yet obtain with us. As becomes a propagandist, Professor Russell has a remedy based in justice to the class now really deprived of a suitable and fitting education. He sums up his observations and conclusions as follows:

"The serious preparation for practical life begins for the great majority of us at the age of thirteen or fourteen, on leaving the elementary school. The most dangerous period in the life of a boy or girl lies just ahead — say up to the age of nineteen or twenty. This is the time when the average boy must learn to be self-supporting and when the girl must fit herself for domestic duties. It is the time, too, when technical training counts for most. I contend that every American boy and girl is entitled to practical help in this time of greatest need — and at public expense, too, if the State maintains high schools, universities and professional schools for those who aspire to leadership in professional life. My reasons for this contention are these:

"(1) Anything that will contribute to the greater efficiency of the workman is a contribution not only to his own well-being but to the wealth of the nation.

"(2) Anything that will lead the workman to take more pride in his work tends to make him a better citizen and a more conservative member of society.

"If it be possible to make each man, no matter what his social standing may be, an honest leader in his own field, a workman who is not ashamed of his handiwork, then we need fear no criticism of our colleagues across the sea, nor need we as an industrial people fear the competition in the world's markets. More than that, we need never lose faith in the righteousness of American ideals or dread the consequences of our social democracy. If there be those who say the task is impossible, I answer in the words of General Armstrong when some one doubted the possibility of negro education. 'What are Christians for but to do the impossible?'

"To summarize: In our efforts to help the common man, whom the Lord loveth, as Abraham Lincoln said, because He makes so many of them, there are several things to be done.

"(1) Our prevailing method of teaching must be so reformed that honesty of effort and of purpose shall triumph over sham and 'cuteness.'

"(2) The old subjects of our elementary curriculum should be given with modern and concrete applications. This does not imply any sacrifice of discipline or culture, or any loss of mental acumen or individual initiative. It means stronger work and better results because it appeals directly to the child's appreciation of what is of most worth.

"(3) New subjects, the 'fads and frills,' if you please, must find a place, provided they give an understanding of modern industrial processes and a knowledge of industrial development.

"(4) It may be that part of the regular course will ultimately be given over to trade instruction.

I am not so sure of that, because I fancy that when public sentiment reaches the stage of demanding so much it will quickly ask for more — more general training as well as more specific instruction.

" (5) We must have, at public expense, too, if in no other way, trade schools of many kinds, both for the sake of making efficient workmen and also particularly for making safe and efficient citizens in a republic pledged to all the world to help all men up and to keep no man down."

To those who go to make up the industrial army — officers and rank and file — there is much in Professor Russell's plan that will challenge investigation — and perhaps ultimately opposition — but there is also much to which all can give a hearty " Hear, hear!" As a progressive man's outline of what future educational schemes will be, it can not fail to be interesting to those having at heart the welfare of the wealth-producing elements.

A VALUABLE DECIMAL SYSTEM CHART.

THE Decimal Association of London is doing splendid service for English-speaking peoples by showing the many advantages of a system of weights and measures that depends upon a basis of tens for the multiples and submultiples of a certain unit called the *meter* of the French metric system.

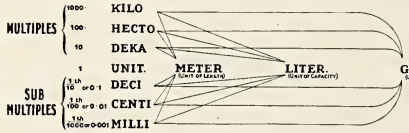
It is highly encouraging to find conservative Britons coöperating in a propaganda so far reaching in its beneficial results to posterity.

The president of the society is Sir Samuel Montagu, Bart., and its secretary is Mr. Edward Johnson. The society was " established to promote the adoption of a decimal system of weights and measures and coinage in the United Kingdom." A large chart, 23½ by 44¼ inches, strikingly designed by John G. Pizter for the British Chamber of Commerce in Paris, is printed in colors and is published by the society. It shows the fundamental basis of the metric system and the derivation of the units of length, weight and capacity, from the $\frac{1}{10000000}$ part of the length of a meridian, reaching from the equator to the pole, in a graphic manner. The chart has reproduced thereon the autographs of some of the most celebrated physicists and scientific men of the world who endorse the movement, among the number being Lord Kelvin, Sir Oliver Lodge, Sir W. H. Preece, Sir William Ramsay and Mr. Alexander Siemens.

A very small portion of the chart is reproduced in the annexed diagram. This shows, in a very comprehensive manner, the three fundamental units, the *meter*, of length, the *liter*, of capacity, and the *gram*, of weight. The multiples of the units are formed by the Greek prefixes: Kilo = 1,000, Hecto = 100 and Deka = 10, which are shown on the diagram with leading lines connecting each one to the three fundamental units.

It is very easy to remember *all* of the units of the metric system by memorizing this diagram, in which process the reader will have the assistance of his eyes, than which there is no more powerful ally in any system of mnemonics.

The very simplicity of it all will appeal to the busy man who needs to familiarize himself with the only scientific and rational system of measurements extant. From the " kilo " prefix three lines lead to the units, as stated, so one almost intuitively reads " kilo*gram*," " kilo*liter*" and " kilo*meter*," meaning 1,000 of each. The hecto*meter*, *liter* and *gram* are found in the same way, as is also the deka*gram*, *liter* and *meter*.



The submultiples are based on the units with Latin prefixes *deci*, *centi* and *milli*, meaning respectively $\frac{1}{10}$, $\frac{1}{100}$ and $\frac{1}{1000}$ of any unit before which they are placed. The method of reading the nine different combinations is the same as described for the multiples.

The chart will make a desirable addition to any office when suitably framed. N. S. A.

CANADIAN PRINTERS AND AMERICAN STYLES.

ONE of the leading British typefounders, with business interests in Canada, deplores the tendency of Canadian printers to keep step with their American fellows. He opines that the standard of output would be much improved if the Canadians copied after John Bull, thereby developing a talent for " original and striking work." So far as the dissemination of knowledge through technical education and the treatment of apprentices are concerned, this may be true, but the Canadian printer is influenced by his American fellow because—in a word—Canada is in America. The printing centers of the Dominion are on the border, and the flow of workmen and ideas is almost as free as it is between neighboring States. The Canadians who have worked in the States — and their name is legion — return with a new wrinkle or so, and in that respect the trade is soon Americanized; and so with the employer who spends his vacations in New York or Chicago; then the all-powerful buyer of printing sees something from " across the line " that pleases him, which means the purchase of new material or the adoption of

new methods, as the case may be. Canadians take pride in their admittedly excellent political system, which is easily understood, and loyalty to their institutions is not lessened one whit by following the "American patron saint," as our British friend puts it. So long as trade conditions in Canada more nearly approximate those of the United States than they do those of the Mother Land, American influences will predominate in the printing art, which is superior to imaginary boundary lines and sentimental considerations. Meantime, Canadian apprentices will look forward to the time when their work will "be noticed," in American rather than British printing circles, and employers will strive to turn out work "as good as that from the States," because the customer wants it so. And this not because they are laggards, as lovers of things British and Canadian, but because it is business and pays.

EXTENDING THE PRINTERS' HOME LIBRARY.

MR. JAMES MONROE KREITER, 331 Seventh street, N. E., Washington, D. C., is creating interest among printers on behalf of the library of the Printers' Home at Colorado Springs, Colorado. The next convention of the International Typographical Union will be held in Colorado Springs, and Mr. Kreiter's suggestion is that each delegate, ex-delegate and visitor take a book along. In order that there may be no doublets or false motions, Mr. Kreiter has fixed up a layout, the salient features of which are to divide the country into phalanxes, with, say the secretary of each local union at the head of each phalanx. These secretaries, acting as "clickers," as our English friends would say, will be supplied with lists of the books required, the names of the books and the authors being specifically stated, with the name of the publisher, and from these definite lists the acting "clicker" can specifically advise each expectant contributor the book he is to furnish. In case any of the lists of books do not contain enough names, Mr. Kreiter undertakes to supply more copy. This in brief is Mr. Kreiter's plan, one indeed which has everything to commend it, as it almost at once will give a privilege to every printer to do a direct, individual service to one of the great monuments of organized achievement and of human sympathy. The name and address of the donor inside the book he presents may bring him in touch with many who have had much in common with him in the past, and even those who are strangers may find a heart-interest in an occasional letter from the readers of the book they left on their visit to Colorado Springs. There is no bar to sending books of any and all kinds, at all times, but Mr. Kreiter's plan is to make the library testify to the visit of the convention in 1906.

ESPERANTO LANGUAGE RECOGNIZED.

English devotees of Esperanto who cherish the hope that it is destined to become the universal language of civilized mankind are greatly elated over its recognition by the board of education. The board has promised a grant to the Esperanto class at Keighly Municipal Technical Institute. Mr. Saxaeur, the general secretary of the British Esperanto Association, says that similar grants are sure to be made in the near future to other schools



A RUSSIAN BUTCHER.

whose students are eager to master the polyglot tongue. Thus far the London County Council has refused to sanction its introduction in the elementary schools under its control, but it is expected that opposition will not long continue. Esperanto is making great headway in Japan. One class there, conducted by a fellow of the Royal Geographical Society, has 433 pupils, of whom 350 are Japanese. — *London Correspondent Chicago Tribune.*

FAITH IN ADVERTISING.

The *Republican-News*, of Hamilton, Ohio, has unusual faith in the far-reaching influence of advertising. In its issue of March 22 it prints the following notice:

NEW ARRIVALS.

Born, to Mrs. Will Tulley, of Edgewood, an eight-pound baby girl.

You do not "know your business" unless you know how to make it bigger and better through advertising.

Written for THE INLAND PRINTER.

SPECIALTY PRINTING.

BY GEORGE SHERMAN.

NO. IX. — RUBBER STAMPS.



HE manufacture of rubber stamps is an ideal and profitable side line for the job-printer, especially when operated in conjunction with a stationery business. A prominent manufacturer of rubber stamps speaks as follows of the profits derived from an investment in a small outfit:

"I commenced this business in an experimental way. The initial investment was less than one hundred dollars. I had been running a paying printing and stationery business for a little more than ten years and I figured that my equipment of type formed about three-fourths of the investment necessary to carry on a successful rubber-stamp works.

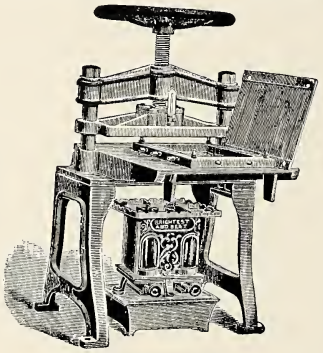
"I felt convinced that I had a decided advantage over any competitor that might engage in an exclusive rubber-stamp business with a new outfit. In less than a year the side line overshadowed my job-printing department in the amount of business done. I had issued an inexpensive catalogue and was now employing agents in all the neighboring towns. I find it to be a clean, profitable business, and indeed one of the best methods of increasing the income of the small job-printer in the country town."

Another printer says: "This side line is by no means a 'small' business. Orders for fifty to one hundred dollars' worth of stamps for such concerns as the Pennsylvania Railroad Company are not infrequent. Several months ago we filled an order for six hundred dollars' worth of special stamps for the Boston & Maine Railroad, and several years ago we received an order for more than one thousand dollars' worth of goods from the Ocean Steamship Company."

The estimated cost of a complete outfit of medium size is as follows:

Vulcanizer and molding press combined, with either gas or oil heater, including chase and flask (7 by 10 inches)	$50.00
Scraper, mixing slab and trowel	1.75
Molding compound, per pound	.10
Gluten, per pound	.15
Rubber, per pound	1.00
Handles and molding strips for mounting stamps	....
Cement, per quart	.50
Brushes, varnish and lubricating powder.	1.00
Name-stamp boxes, each, about	.01½
Name-stamp pads and distributors, each.	.02
Indelible ink, per dozen	.35
Fifty dram bottles of ink, assorted colors	1.00
Ink, assorted colors, ½ oz. bottles, per dozen	$ 1.00
Self-inking pads, No. 0, assorted colors, dozen	1.00
Self-inking pads, No. 1, dozen	1.30

In addition to the above, the beginner should have a good assortment of pen and pencil stamps, line daters, band daters and automatic hand stamps. The prices of the above vary according to quality and size. After the business begins to pay, it will be well to buy molding strips in large quantities and to add a circular saw to facilitate the cutting of handles of various dimensions.



DRY PROCESS VULCANIZER.

The first process in the manufacture of rubber stamps is the making of the matrice. Either type, electrotypes or woodcuts may be used. The form of type or cuts is pressed into a compound which forms a hard mold when dry. The raw rubber is vulcanized into the mold with heat and pressure. Three methods of vulcanizing are now in use — the wet-steam process, the dry-steam process and the hot-air process. The use of wet steam is a slow method and unsuitable to the requirements in large rush orders. The dry-steam and hot-air processes produce good results quickly and are used most extensively by the large stamp manufacturers.

After the type is locked in the special chase it should be thoroughly scrubbed with benzin. The molding compound is then mixed on a smooth slab by adding gluten water in small quantities until the paste reaches the consistency of thick mortar. Place a sufficient amount of the composition on the flask to fill the space between the bearers and spread it evenly with the trowel. Use the scraper to level it off even with the bearers. The foremost consideration of the beginner in the business should be to learn how to make clean, sharp, deep molds. After this requirement is successfully mastered the process is extremely simple and may be thoroughly understood by an intelligent boy.

To assure good molds, a good molding or matrix compound is essential. Various stampmakers use mixtures of china clay, kaolin and calcine plaster, which they mix themselves, with varying results. It is a mistake for the beginner to attempt to make his own molding compound, as the uncertainty of good results will overcome the possible saving in the cost of the mixture. The best method is to use some good compound sold by a reliable dealer in stamp supplies.

Lay a piece of muslin on the form and a sheet of tissue-paper over all, then turn the flask over, with the compound side down, and adjust it so that the holes in the flask will fit over the pins in the chase. Be sure that the springs are in their proper places around the pins. Now lay one of the impression plates on the back of the flask and between the pin holes. Place the form under the vulcanizer when cold, and screw down gently until the pins in the chase stop the impression. At this point the type will have entered the compound to the thickness of the impression plate. Withdraw the form, lift the flask and remove the muslin and tissue-paper.

After waiting for the mold to dry slightly, as per time given in the table, brush the type with benzin to lubricate it and replace the flask over the chase. Put on two impression plates and adjust the holes to pins as before. Then withdraw the form and lift the flask. Again dry the mold slightly, apply more benzin to the type, and make a third impression, using three impression plates.

Great care is required when drying the mold. If the heat is too intense, the expansion will cause the mold to crack. The making of the mold is really the most difficult part of the work. A good mold depends upon the hardness of the compound. If it looks rough or sticks, it is because the composition was too soft. If the mold breaks or cracks, the composition was too hard when the last impression was made. The following comparative table of time and materials required for forms of various sizes is of value:

Size of Chase. Inches.	Gluten water. Ounces.	Compound. Ounces.	Time for mixing compound. Minutes.	Time for leveling on the flask. Minutes.	Time before taking first impression. Minutes.	Time before taking second impression. Minutes.	Time before taking third impression. Minutes.	Time for drying the mold Minutes.
3½ by 5½	1	2	1	1	2	2	2	30
5 by 8	2	4½	2	2	2	2	2	45
7 by 10	3	6½	3	2	3	3	3	60

The mold should be dried over a coal-oil stove or a gas heater for the length of time specified in the table. The danger of cracking the mold may be minimized by laying the flask on the top of the heater, compound side up, and placing a piece of iron under it to let the air pass under. A number of casts may be made from a hard mold, if in perfect condition. After the mold is made, all the places elevated above the bearers should be pared down with a long-bladed knife.

In vulcanizing, screw down the platen to the bed of the vulcanizer and apply about 280° of heat. A thermometer should be used to gauge the correct temperature. Both the rubber and the mold should be lubricated with soapstone powder before the rubber is placed over the face of the mold. Then turn off the heat and raise the platen of the vulcanizer. Place the mold directly under the center of the impression and screw it down hard. Screw the impression down still further when the rubber begins to soften and runs into the depressions of the matrix.

The mold should be left in the vulcanizer for from three to five minutes. This completes the rubber cast, which should be pulled from the mold gradually. The rubber must be cooked at the proper degree of heat and for the proper length of time. If the rubber is baked too long the wearing qualities of the stamp will be greatly impaired. A good stamp should last for several years with constant usage. After the sheet of rubber is taken from the mold it should be dusted over with talc or soapstone before trimming and mounting.

The foregoing table applies to the usual grade of rubber made for the manufacture of rubber stamps. The time and degree of heat required may have to be varied when other grades of rubber are used. Both the heat and the time may be properly regulated to suit the grade of rubber by a little experimenting.

A satisfactory gluten water may be made by dissolving one pound of yellow dextrin in one gallon of cold water. This will keep indefinitely.

(To be continued.)

A REPLY TO "AN OLD PRINTER."

In its issue of April 11, *Printers' Ink*, the oldest and best recognized authority on advertising, answers some questions from "An Old Printer," concluding with the following significant words:

> An advertising medium, to do good, must have quality *and* quantity; of these quantity is most important, but with quantity the same can any one doubt that first quality is better than second or sixth?— *Editor Printers' Ink.*

In certification of quantity and quality the management of *Printers' Ink* indicate with gold marks (◉◉) the papers possessing these desirable features. The Inland Printer is the only publication in its field which is given this distinction. It is the highest priced technical paper in its field, yet it has a circulation (a paid-in-advance circulation) larger than all other papers in the field combined. It is conducted on principle, not on policy, and on the motto of the "square deal."

Its influence is for betterment and constructive reforms.

Written for The Inland Printer.

CARDBOARD MARGINS.

BY CHARLES M. BUTLER.

MAKING margins by the aid of diagrams, or by the so-called cardboard marginal system, is applied in the larger printing-houses as most desirable in making margins for forms printed on solid bases or sectional patent blocks, or with those blocks which fit sectionally upon flat press beds or on curved plate work on cylinders, where one has to be mathematically accurate as to position of pages, and work from a given point in placing pages in position. The cardboard system is simple, and in use in large offices where one stoneman lays out the work for several assistants. It consists in marking out measurements upon a long strip of cardboard; and, in making margins, instead of using a foot rule, measuring by the marks on the card.

This system is worked as hereinafter described in one of the largest pressrooms in Chicago. The

Job No. ... 407
Stock ... 22 x 32
For whom ... Smith and Jones.
Size of page ... 22 x 36
Type or plates ...
Press ... Pony

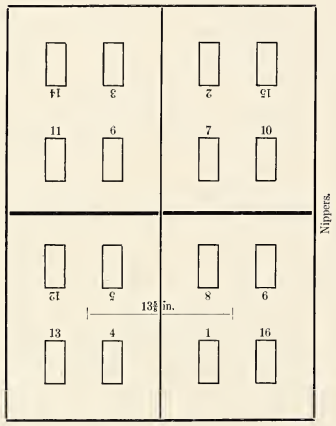


Fig. 1.—The Layout.

head stoneman (paradoxical as it may seem) seldom works upon the make-up or lock-up stone. He has an "office" supplied with a table and other paraphernalia needed. Besides "making the margins" he keeps track of the presses, sees that each is supplied with proper-sized forms, and also that the different sizes and styles of folding machines have their proper quota of work. All the tickets, describing jobs which require lock-up, pass through his hands. From the information on the ticket or by supplying the information lacking, he makes out the margins on jobs.

For instance, he receives a ticket calling for the printing of sixteen pages out of 32 by 44 stock. It is to be a sewed book, trimmed to 5¼ by 7⅜ inches. First he gets the dimension of the plates or type page, and, satisfied upon the kind of folding machine to be used, marks out a form diagram on a sheet of memorandum paper, placing point marks and other information thereon. His duty is to avoid mistakes and discussion (see Fig. 1).

Then he makes out the margins on a strip of cardboard, one side for long way of page (see Fig. 2), the reverse side for short way of page (see Fig. 3). An assistant is then given the "layout" and strips of cardboard, the plates or type, and straightway evolves the margins.

There is a certain amount of time saved on the stone by use of this scheme; and where more than one form is to be made up, perhaps on different days, it is an infallible scheme of duplicating margins. Where one man is held responsible for more than his own work, it saves his time in overseeing the actual building up of the form, and only needs a minute or so of time to verify the correctness of the completed job. The strips and layout can be turned in with the regular job ticket and margins measured on the flat sheet as it comes from the press for O. K.-ing.

The "laying out" of a form upon a strip of cardboard simply makes "imposition" a mathematical formula. For instance, a sheet of paper 22 by 32, when folded three times, becomes 5½ by 8 inches. One takes into account three trim edges, one trim of ¼ inch the narrow way, and ⅝ inch in two trims top and bottom. There should be no lack of uniformity in the fold-trim (head) even in cheaper grades of paper which may vary in size, so just a little (⅛ inch) may be allowed for this trim and the balance may be allowed for the trim of the bottom to take into account a slight variation of stock, or for deviation of cut of knife on press. So the problem would prove itself in this wise: a page 22 ems wide to print in the center of a trimmed sheet 5¼ inches wide would require 9½ picas space (usually figure in even picas) or 9 even picas to form back margin, or 2 picas less than 5½ inches. Add this minus quantity to trim edge, which would make gutter margin 13 picas. This is the key to sideway margins (see Fig. 4). From the center mark, 1, on the card, mark lines 6½ ems each way *a* and *aa*, which will represent where the outer edges of pages should strike if in proper position.

From 1 to 2 is 5½ inches, from *a* to *c* and *aa* to *cc* is 5¼ inches, which gives you another mark on the card each way; *b* to *c* and *bb* to *cc* is 9 picas; from *b* to *d* and *bb* to *dd* is 5¼ inches, and from 2 to 3 (edge of stock) is 5½ inches.

This is a very good scheme also for centering wide or narrow pages; simply proportion the page over or between the marks.

To find the headway margins (see Fig. 5) proceed in the same manner as above: From 1, the center, to 2 and from 2 to 3 is 8 inches (48 picas). A page 36 picas deep, to print in the center of



Fig. 2.—Marginal Gage, Headwise.



Fig. 3.—Marginal Gage, Sidewise.



Fig. 4.—Explanation of Fig. 3.

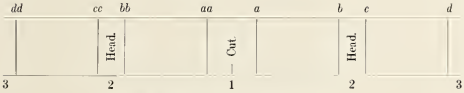


Fig. 5.—Explanation of Fig. 2.

a trimmed sheet 7⅜ inches (approximately 44 picas) would require 8 ems in head plus trim-space (¼ inch) or practically 10 picas, which is 2 picas less than 8 inches. Add minus quantity to cut edge (12 and 2), which gives 14 picas space. From 1, mark lines *a* and *aa* 7 picas; from *a* to *c* and *aa* to *cc* is 7⅝ inches, as is also *b* to *d* and *bb* to *dd*. To position *b* mark 10 picas from *c*, as also *bb* from *cc*.

Long or short pages can be proportioned the same as narrow or wide ones with other gage.

On large forms, 16s and 32s, it is not absolutely necessary to use a full-length strip to mark out dimensions. So long as one page over the half-form is shown, that is sufficient, for by reversing gage end for end it will proportion the other half of form.

On patent-block forms, the lock-up deducts from head-margin furniture the thickness of the two head catches, which becomes part of the margin; sidewise adding to dimension of blocks sufficient to make the required measure.

On ordinary forms, with bars crossed or one way of chase, the foundation point of measurement is usually the center of the bar in a line across the middle of the particular section to be measured. On quarter-sectioned blocks, or cylinder, or press beds, the point is the nipper-margin edge for one gage and the center mark of press or conjunction point of blocks for the other. In all events, a stationary point is used for the foundation of measurement.

AMERICANS PRINT "ENCYCLOPEDIA BRITANNICA."

In the English book-printing trade the announcement made in the *Athenaeum* that the tenth edition of the "Encyclopedia Britannica," now in course of preparation, is to be "set up" and "machined" in America, has caused great consternation. While in the hands of Messrs. A. & C. Black the printing of the huge work always was intrusted to Scottish printing establishments, most of which are centered in Edinburgh. The transfer of the job to the other side of the Atlantic will sever the association of the Scotch capital with the great work which has continued unbroken since its first issue. But in view of the fact that the American sales greatly exceed those made here there is considerable justification for getting all the printing done in America.—*London Correspondent Chicago Tribune.*



RUSSIAN PEASANT WOMAN.

Written for The Inland Printer.

MODERN BOOKBINDING.

BY A. HUGHMARK.

NO. XIV. — JOB BINDING.



NDER this head we include the binding of all books other than blank and edition, magazines, music, maps, atlases and others where handwork prevails throughout. The first thing to be done is to tear off the old or paper covers, separate the signatures, clean and scrape off the glue from each and take out the threads remaining from the old sewing, or the wire staples if the sheets have been stitched. Any loose leaf found is tipped, torn leaves mended and plates placed in their proper places, if any occur in the book in hand. It is always best to wait until several books have accumulated and then take them on at one time, even if they are of different sizes and styles of binding. The process followed up to the covering is nearly always the same, anyway.

They are put into a press after being properly mended, cleaned and collated, and left over night. They are then ready to be sawed out for strings, which should be two for very small books, three for an ordinary octavo and five for quartos or folios. The thickness of the cord to be used should be in accordance with the thickness of the book. Very thin books, less than one hundred pages, that are to be bound in good binding, should have silk rope-floss, requiring very small saw marks or indentations in the back fold of the sheets. The next smallest cord to be used for this purpose is a three-cord soft twine, then a four and five cord for the heavier volumes. For each of these cords a groove is sawed across the back just deep enough to fit it into, so that it will be flush with the back. The kettle-stitch marks should be only deep enough to go through the sheet, and no more. The books are usually sewed without end-sheets, these being either tipped or sewed afterward. When taken out of the sewing bench and drawn off the strings, enough of these should be left on each side of the book for lacing into the boards. The ends of these cords are fanned out, that is to say, shaved down so that they can be drawn through with ease. The end-sheets are now attached by being sewed or tipped on as the case may be. For small books in half-binding, a four-page end-sheet well tipped on will do very well. For large or heavy books, however, cloth or leather joints should be used. For leather joints a thin, well-shaved morocco of the same kind as is used for the cover is cut into strips the length of the untrimmed book, an inch and a quarter wide, or more, according to the thickness of the book. These are then pared down on the sides and folded, with one side wide for the joint and paste-up and the other narrow for tipping. An end-sheet of four pages, to match the color of the paper in the book, is then stripped in the center with a narrow strip of cambric (glazed). When this is dry the sheet can be sewed onto the book through this strip. The narrow side of the leather joint is glued down on the outside of this reënforced end-sheet, so that the fold of the leather comes well up and even with the back. The fancy paste-up paper is then lined up on the outside with paste, so that it covers the edge of the glued-down joint, up to and within a quarter or three-eighths of an inch of the fold. Dryers are then placed between the lined leaf and the book. A single leaf, of any kind of paper, is tipped lightly on top of the leather joint as a waste leaf, which is to be torn off after the book is forwarded and ready to be pasted up. This is to protect the end-sheet and to keep the joint in position while forwarding. The book or books are now placed between boards with a weight on to dry before trimming.

The trimming should be done with a clean-edged knife, fore edge first, and then the back of the book should be pushed against the side gage of the machine and a narrow binder's board block laid across the book nearly up to the back, but not across it, for the tail cut. The book is then reversed and the operation repeated for the head cut. If this is followed it should now be perfectly squared. So far the process is the same for all bindings, including flexible. If the edges are to be colored, sprinkled, round-cornered, gilded or marbled, that is the next thing to do. Books that have heavy plates or maps should have these put on guards so that they will open up properly. These should also be measured off with compasses to see if margins are uniform, allowing for trimming. It is very often necessary to cut off the back edge and top of each plate with knife and straight edge to insure such uniformity.

A colored or marbled edge should be polished (burnished). The backs are now glued up with a comparatively thin glue and not much of it. Here care should be taken to keep the slips (cord ends) clean from the glue.

The rounding is done by hand and hammer before the glue gets thoroughly dry on the back. The left hand should be placed so that the thumb pushes back the fore edge, the fingers on top of the book drawing it — the upper side — forward, while the taps of the hammer beat squarely against the upper half of the back. The movements of the hammer should be from end to end, covering the whole distance with a slight dragging of every blow forward. The book is then turned; it may have to be turned two or three times before

the proper rounding is obtained. This should be a perfect crescent. The thickness of the boards should be decided upon before backing. The backed joint should be equal in height to the thickness of the boards. If the backing is done in a jobbing backer, the blows of the hammer should fall from the center toward the joint, thereby *bending each* sheet evenly near the beginning and the end of the book toward their respective joints. If the blows fall not evenly or squarely, the inside of the book will have its sheets badly indented in the back. It is useless to bind up a book so backed. It is spoiled to any one who cares at all about the appearance of a book.

The shape and sharpness of the joint should be like the one described and illustrated in the process for edition binding. The book is now ready for boards and these should be cut with squares to be in accordance with the binding. A small book usually has small squares. Half-bound books, too, have only enough end squares to extend sufficiently to cover the headbands, making the

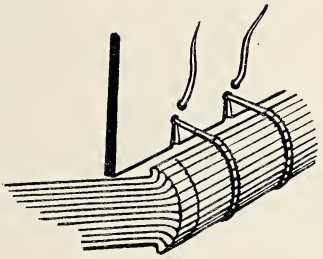


Fig. 1.

fore a trifle wider. Books in full binding that have their squares rolled in gold have to be wider. The headbands, too, are wider, so the heads can be set snugly. Silk headbands come in many widths to allow for all sizes of books and squares. One board is placed on the book against the joint and adjusted as to squares; a mark is then made directly opposite to each slip. A hole is stabbed with an awl half an inch from the edge marked, in direct line with each mark. The board is then turned over and another hole stabbed in front of each of the others and half an inch away from them, making the distance from these to the edge one inch. The board is again turned over and placed in position on the book. The slips are pasted and twirled between the palms of the hands until they become round and pointed. They are then inserted through the first series of holes and returned from the inside through the second series. The ends are now outside again. They should be drawn up tight, forcing the board well up against the joint while so doing. The ends are cut off close to the board, after which the holes are tapped down with the end of the awl, before turning the book over. Very thick or large books requiring thick twines and heavier boards should have a small groove cut out for each slip (see Fig. 1). After the boards are laced in and dried they are opened up and laid flat on a bench iron to have the lumps, caused by the lacing, pounded down

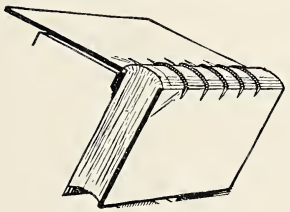


Fig. 2.

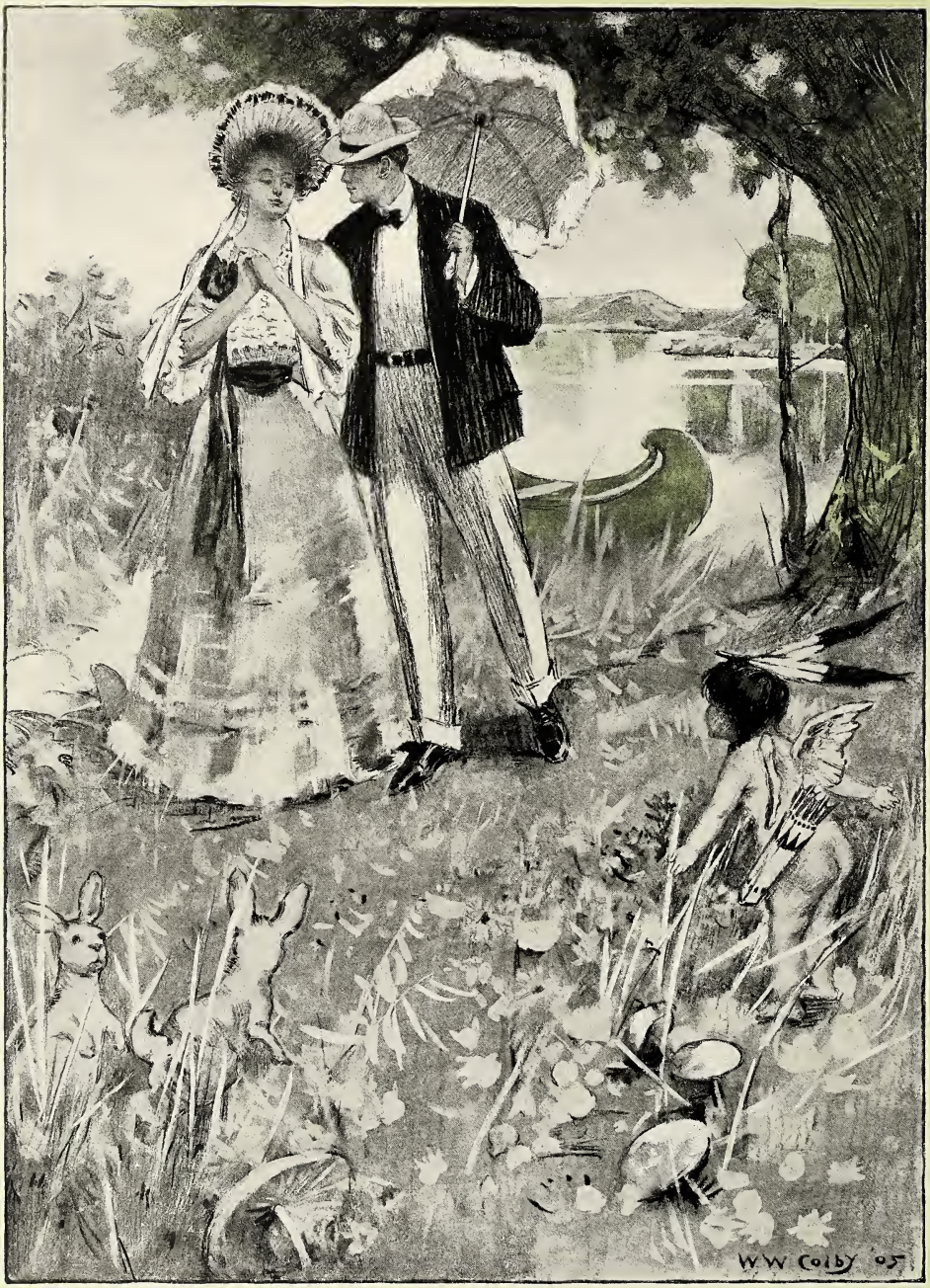
(Fig. 2). The book is next placed in a press over night. When it is taken out the headbands are glued on close to the edges and running from joint to joint. A strip of paper is glued on the back between the headbands as a filler to make the back smooth. A stout piece of rag lining or express paper is cut a little longer than the book, with the fiber running lengthwise of the book. The back is well glued this time with a thicker glue than on previous occasions, taking care not to get any on the boards. Now, the edge of the lining is laid on a quarter of an inch from the joint, covering the balance of the back and rubbing it down.

The book is turned over and the overhanging lining folded back from the joint, again covering the back all the way across, sticking it down on the uncovered one-eighth-inch glued strip beyond where it was first started. It should be well rubbed all over now, and then the remaining overlapping paper again folded back and cut off. These operations require neatness and accuracy. The folds should be sharp and come even with the boards, yet not overlap the joints when the covers are thrown back. This double back should also be firmly attached and fit snugly all over, for on it depends the look of the back when bound. The ends are next trimmed off with the shears and corners of lining and headbands cut off near the boards, so that when the ends are turned in and heads set, everything will be snug and clean.

(To be continued.)

A FACTOR IN HIS SUCCESS.

Allow me to say a word for your welcome publication. I have recently turned "printer" and I am still carrying The Inland along in my journey. It has been a great factor in my success and I am proud to say that I have gained much knowledge from The Inland Printer.—*Horace E. Fitzer, Ilion, New York.*



SPRING.

Drawn by W. W. Colby for THE INLAND PRINTER.

Written for THE INLAND PRINTER.

THE STUDY OF ELECTRIC PRINCIPLES SIMPLIFIED.

BY A. STAPHE.

NO. II. — UNITS OF MEASUREMENT.



IN every phase of life one encounters the necessity for *measurement*. Putting it in another way, it may be said that all measurements are but *comparisons* with a certain standard or a given unit.

The carpenter uses a unit of length — the foot. The mechanic an inch or parts of an inch, according to the degree of precision necessary to complete his work to within an allowable error, ranging from 1-100 to 1-10,000 inch. The physicist, the 1-10,000,000 of a millimeter when noting wave lengths of the spectrum.

Whatever the work or subject under consideration, it is first necessary to consider by what standard the dimensions are to be compared, in order that the instructions or deductions may be intelligible to others. Even though we do not positively know what electricity is — it is supposed to be a mode of motion of the luminiferous ether — we do know its general laws as definitely as those of mechanics or steam engineering are understood.

It is no longer necessary or desirable to invest the subject with a certain pedantic mystery to awe the uninitiated, but it is intensely practical to know how to utilize its potentiality in useful directions.

How is one to understand the units of measurement of an unseen agency? One can not measure any length, breadth, depth or weight of it in the sense that tangible things are considered. It remains then to make comparisons of its various characteristics through a notation of the *effects* produced under various conditions. Physicists have found it desirable to use analogies when making comparisons between well understood facts and those but little understood, of which it is desired to know more.

In electrical work, the *water* analogy is used to make clear the characteristics of electrical conditions. This may be put concisely as follows:

In a water system a pump that draws water from a reservoir or source of supply is comparable to a dynamo; the pipe system from the pump, to the wires leading from the dynamo; a rotary water motor supplied by the pipes, to an electric motor supplied by the wires; the return of the used water to the reservoir, to the return circuit of the dynamo.

As the pump forces the water through the pipes at a given number of pounds per square inch, so the dynamo forces the electric current at a certain pressure (volts) through the wires. The water pressure acts on the water motor and a certain number of gallons per minute at the given pressure per square inch cause the water motor to rotate and give out power, so the electric pressure (volts) acts on the electric motor and causes a certain quantity of current (amperes) to operate the motor and give out power. The size of the pipe, if larger or smaller, presents more or less resistance to the flow of the water. Every water motor attached to the pipes will have a certain resistance to the free flow of the water, otherwise it could not give out any power if there was no effort necessary to rotate its shaft; similarly the size of the wire, whether larger or smaller, and the number of motors connected on it, determine the resistance (ohms) to the unrestricted flow of the current.

The tabulation of the different names and their analogies are a summary of this and other comparisons made between the characteristics of the two systems.

Certain arbitrary names have been given to the electrical units in honor of celebrated investigators. The *Volt*, which is the unit of electrical potential or pressure, in honor of the Italian physicist, Allesandro Volta, who was born at Como in February, 1745. He died March, 1827. The *Ampere*, which is the unit of flow, in honor of the Frenchman, André-Marie Ampère, who was the founder of the science of Electro-Dynamics. He was born at Lyons in January, 1775, and died in Marseilles in June, 1836. The *Ohm*, as the unit of resistance, in honor of Georg Simon Ohm, who was born in Germany, at Erlangen, in 1781. He died in July, 1854. He was the founder of what is known as Ohm's Law.

The *Watt*, as the unit of power, in honor of James Watt, who was born at Greenock, Scotland, in January, 1736, who was the inventor of the modern condensing steam engine. His death occurred in August, 1819. Only those units that relate to practical work, outside of the minute units used in the laboratory, are considered.

We have, then, in short, the units listed below, alongside their respective analogies:

Name.	Character.	Symbol.	Analogy.
Volt	Potential, pressure	E	Pounds per square inch.
Ampere	Rate of flow, strength	C	Gallons per minute.
Ohms	Resistance	R	Size of pipe.
Watts	Power	P	Horse-power or rate of work.
Dynamo	Source of electricity		Pump.
Motor	Source of power		Rotary water motor.
Wire	Conductor for current		Pipe line.

It will be necessary to consider the interrelation of these units, and in order to do so with a view of acquiring the greatest benefit, a number of specific problems will have to be made use of.

To recapitulate, the *volt* is the pressure that overcomes a certain resistance — *ohm* — and in proportion as the resistance is overcome, there results a flow of a definite strength of current

called the *ampere*. Thus, under a pressure or electromotive force of *one volt*, impressed on a resistance of *one ohm*, a current of *one ampere* will flow in the circuit. It must be understood that the use of the word "flow" is one of convenience rather than accuracy of statement, because we do not know of any flow like a water transference taking place in the wires of a circuit. When a circuit is mentioned, one that is continuous or closed is always referred to.

The following table has been constructed so as to give the different combinations of the various problems involved in "Ohm's law." If this is memorized, as to its main features at least, it will be of great help. The ohm is more "tangible" than either the volt or ampere, because it varies directly as the length of the conductor, which is the same as saying, if a certain wire having a resistance of 10 ohms was 100 feet long, another having *twice* the resistance would be *twice* the length, or 200 feet. It varies *inversely* with the sectional area of the conductor, which means that a given length of wire having a given sectional area will have four times the resistance of another which has a similar length but four times the area. It also varies with the quality and material of the conductor. In practice, the size of wires is given in thousandths of an inch, called for shortness a *mil*, being the French for 1,000. When it is said a certain wire is of 32 mils diameter, it means the same as saying it is 32-1,000 inch diameter; and when its cross section is referred to as having 1,000 square mils in its area, the meaning to be conveyed is that there are 1,000 *squares* of .001 inch each side within the circumference of the wire. The area is found by squaring the diameter and multiplying by .7854 ($d^2 \times .7854$). Circular mils are also used to represent areas; they are found by squaring (d^2) the diameter expressed in mils.

OHM'S LAW IN TABULAR FORM.

Water analogy is			Pounds	Gallons	Pipe size	Horse-power
Electric names are			Volts	Amperes	Ohms	Watts
The "shorthand" symbols are			E	C	R	P
Assumed values are			10	5	2	50
No.	Unknown.	Known Value.	VOLT Solutions.			
1	Volts = E =	C R =	10 =	5×2		
2	" E =	$\frac{P}{C}$ =	10 =			$50 \div 5$
3	" E =	$\sqrt{R P}$ =	10 =			$\sqrt{2 \times 50}$
			AMPERE Solutions.			
4	Amperes = C =	$\frac{E}{R}$ =	$10 \div 2 =$	5		
5	" C =	$\frac{P}{E}$ =		5 =		$50 \div 10$
6	" C =	$\sqrt{\frac{P}{R}}$ =		5 =		$\sqrt{50 \div 2}$
			OHM Solutions.			
7	Ohms = R =	$\frac{E}{C}$ =	$10 \div 5 =$		2	
8	" R =	$\frac{E^2}{P}$ =	$10 \times 10 \div 50 =$		2	
9	" R =	$\frac{P}{C^2}$ =			2	$= 50 \div (5 \times 5)$
			WATT Solutions.			
10	Watts = P =	C E =	$10 \times 5 =$			50
11	" P =	$\frac{E^2}{R}$ =	$10 \times 10 \div 2 =$			50
12	" P =	$C^2 R$ =		$5 \times 5 \times 2 =$		50

We will suppose a few examples of practical application:

1. Suppose a dynamo delivers ½ ampere (C) of current to an incandescent lamp @ 100 volts (E), what is the resistance (R) of the lamp?

From the table one can select one of three formulas which contain the given values to solve

the problem. Volts (E) and amperes (C) are given, so one selects No. 7, which in technical *shorthand* is given as $\frac{E}{C}$ and which in *longhand* means $\frac{\text{volts}}{\text{amperes}}$, or volts divided by the amperes = 200 ohms.

2. Suppose it is said that 50 watts (P) were used in the lamp, and the query stood: what are the amperes (C) of current and how many ohms (R) resistance?

4. If the query was: Given a motor of 2 horse-power and 14 amperes (C), what voltage (E) will be necessary to operate the motor?

At 2 horse-power the watts will be twice the value for one, or $2 \times 746 = 1{,}492$ watts. Now, from the table, remembering that the volts (E) are desired, we select No. 2, which tells us to use $\frac{P}{C} = \frac{1{,}492}{14} = 106.5$ volts.

5. Suppose a problem involving more complexity than any of the previous ones, in which the



TYPES.

Photo by Falk. From a post-card by the Rotograph Company.

From the table, after noting that the amperes (C) are the *unknown* quantity, one selects for the solution formula No. 5, which reads $\frac{P}{E} = \frac{50}{100} = \frac{5}{10}$ or $\frac{1}{2}$ ampere. For the ohm (R) query one selects No. 8, which says, ohms $(R) = \frac{E^2}{P} = \frac{100 \times 100}{50} = \frac{10{,}000}{50} = 200$. The reason No. 8 is selected is that only the E and P values are given in the problem.

3. A certain motor demands 10 amperes (C) @ 100 volts (E), how many watts (P) and what is its horse-power (*H. P.*). Formula No. 10 says $C\,E$, which means $C \times E$ or amperes (C) $\times$ volts (E) $= 10 \times 100 = 1{,}000$ watts. This divided by 746 = the horse-power, (1.34) because there are 746 watts in *one* horse-power.

question was, what voltage (E) was necessary to operate a motor that had a resistance of 5 ohms (R) and required 2,000 watts (P). From the table, under "volts unknown," select formula No. 3, $E = \sqrt{R\,P}$, which transposed into longhand reads thus: the square root of the product of the resistance multiplied by the watts equals the volts. In the problem, $5 \times 2{,}000 = 10{,}000$ and the square root of this = 100 volts.

It is thought that with these few examples and the table the solution of any ordinary problem will be a relatively easy matter.

There are other units of measurement that apply to static electricity and to magnetic phenomena. These will be referred to in the proper place, as specific illustrations of definite applications arise.

(To be continued.)

Written for THE INLAND PRINTER.

A COMPARISON OF LINES PER INCH AND LINES PER CENTIMETER.

BY A. ENESS.

DURING the next decade, and intensely the fore part thereof, the Anglo-Saxon peoples will be passing through a transition period in changing from a cumbersome and obsolete system of weights and measures to one replete with many material advantages. In order to ease over one phase of this period, the annexed table has been prepared.

It is easy to remember that there are 25.4 mm. (millimeters) in an inch, and .03937 inch in a millimeter. Knowing how many millimeters there are in an inch, it is the simplest possible process to tell at a glance how many centimeters there are in an inch, by simply shifting the decimal point one place to the left, from 25.4 to 2.54; also what part of a decimeter, by duplicating the process on the last value, changing it from 2.54 to .254, which is the portion of a decimeter found in an inch. Carrying the matter further, the portion of a meter found in an inch is .0254, a dekometer .00254, a hectometer .000254 and a kilometer .0000254. This is carried the entire range of submultiples and multiples in order to show how easily the transposition is made in comparison to the difficult determination of what portion of a foot, a yard, a rod, a furlong and a mile is found in the 1-16 part of an inch.

Further comparison is unnecessary.

In case it is desired to know the lines per millimeter, this is ascertained by simply dividing the lines per centimeter by 10, which is effected in the shortest time by moving the decimal point *one place* to the left.

The pitch or distance the center of one line is from that of an adjacent one is always a fraction in which 1 is the numerator and the given lines per inch the denominator, as, for instance, at 85 lines per inch the pitch, in inches, equals 1-85 inch, and in millimeters 1-3.15 mm.

The formula from which the table is produced is as follows: Lines per centimeter equal lines per inch divided by 2.54, and the lines per inch equal lines per centimeter multiplied by 2.54.

In the short table the lines are calculated from the lines per inch that are divided by 2.54, which in the case of the first value is 19.68 lines per centimeter. This produces uneven numbers in the second and fourth lines. If the lines per centimeter were even, then the lines per inch would be uneven, because the constant 2.54 can not be used so as to make *both* values even. The error is so slight, however, as to be negligible; for instance, 19.68 lines per centimeter × 2.54 = 49.987 lines per inch, instead of exactly 50. If one assumed 20 lines per centimeter there would be 20 × 2.54 lines per inch, or 50.80.

It is often desirable to know the equivalent of the two systems — the English and Metric — in the lines within a given space, whether for half-tone, zinc etching, lithography, etc. When events reach the point where we will discard the nerve-racking and time-consuming system of inches, thousandths of inches, feet, yards, etc., for the simple system wherein the unit is enlarged or decreased in multiples and submultiples of tens, it will be time to congratulate ourselves.

METRIC EQUIVALENTS TABLE FOR LINES PER INCH AND LINES PER CENTIMETER.

Lines per inch	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	133
Lines per centimeter	19.68	21.66	23.61	25.6	27.55	29.5	31.5	33.45	35.45	37.4	39.37	41.35	43.3	45.3	47.2	49.2	51.2	52.4
Lines per inch	135	140	145	150	155	160	165	170	175	180	185	190	195	200	225	250	275	300
Lines per centimeter	53.2	55.1	57.1	59.0	61.1	63.0	64.9	66.9	68.9	70.9	72.9	74.8	76.8	78.74	88.6	98.4	108.3	118.0

BOOKBINDINGS IN EUROPE.

An official of the Congressional Library was recently remarking upon the difference of the bindings put upon the documents issued by the United States Government and those of European countries.

"Here, for instance, is a volume issued by the French government upon fish culture," he said. "You will observe that the paper, presswork and illustrations are the finest, while the binding, or cover, rather, is a very cheap paper. A volume somewhat similar is the annual report of the Smithsonian Institution in this country, but upon this report is put a good binding of green cloth.

"The reason for this is simple. Practically every book-collector or institution in Europe has its private binding, it being possible to have this work done at a very moderate rate, and the paper covers are intended merely as wrappers until the volume shall have reached its destination. In this country there are a few individuals and some libraries which have their books bound in a private binding, but the cost of such work is so great that it is far from being usual.

"This is one reason for the fact that the paper and presswork of a French book, for instance, are so much finer than those of an American book of the same price."—*Harper's Weekly.*

THE INLAND PRINTER is *it* so far as a magazine pertaining to our business is concerned.—*Charles H. Webb, Chicago, Illinois.*

MR. A. J. NEWTON.

The January number of *Le Procédé*, published by H. Calmels, Paris, France, contains an interesting portrait and sketch of the career of Mr. A. J. Newton, who is in charge of the Bolt Court School of Lithography and Engraving, of London.

Mr. Newton was born at Brighton in 1872. He has been in active coöperation with the foremost workers in the process field: Mr. Charles W. Gamble, now of the Manchester Municipal School of Technology; Mr. Howard Farmer, of the Polytechnic, on Regent street, London, and Mr. Frederick E. Ives, while connected with the Swan Electric Engraving Company, London.

Mr. Newton spent a number of years in the principal photoengraving establishments and technical schools in



A. J. NEWTON.

Europe. After his return he became assistant to Mr. Charles W. Gamble, who was then in charge of the London County Council's Bolt Court School. When Mr. Gamble was called to his Manchester field, Mr. Newton became technical adviser of J. Waddington, Limited. His extended experience appealed to the managers of the Bolt Court School and he was appointed its director.

During the four years he has been at the head of this school, he has accomplished far-reaching results; has instilled into his many graduates the fundamentals of true research. His papers read before the various scientific societies are noted for their reliable data and clear presentation of the subjects dealt with.

Mr. Newton has a charming personality; is modest but positive in his ground without becoming dogmatic. He carries the confidence of his students and his confrères in Graphic Art Researches. N. S. A.

"PRAISE FROM SIR HUBERT IS PRAISE INDEED."

I am glad to see THE INLAND PRINTER so successfully and consistently maintain its high reputation.— *R. Coupland Harding, Wellington, New Zealand.*

DEVELOPMENT OF ROTARY PRINTING.

The development of web or rotary printing goes on rapidly, one of the highest developments at present being shown in the little twelve-page magazine issued from a specially designed Goss press by the Metropolitan Life Insurance Company, of New York, the cover of which is printed on coated paper in three colors. In a short article in a recent issue *The Metropolitan*, which is the title of the magazine, says: "A copy of *The Metropolitan* is sent to the home of every policy-holder, and the circulation has grown to such enormous proportions that all ordinary methods of producing it being entirely inadequate, three years ago it was deemed advisable to construct a special press which would print each issue within the required time. Accordingly, after considerable figuring, planning and experimenting, a machine has been constructed and installed in the new Metropolitan Life Annex building, erected for the use of the Printing Department, which prints, pastes and folds this little magazine and delivers it into the receiving box just as you see it, at the rate of five hundred copies per minute or thirty thousand copies per hour. The printed copies are taken from the press by a mechanical device (really a part of the press), which carries them about forty feet through a drying box, heated to a high temperature, so that when they come out they are all dry and ready to pack for shipment to the company's agents for distribution. The machine is run by electricity, requiring twenty horse-power, and the control is so perfect that it is started up and stopped by the pressing of a button. A special paper is used, which is put up in rolls, two rolls being placed in the press at once. This machine eats up two thousand pounds of paper per hour and three hundred thousand pounds, or ten carloads of fifteen tons each, are required to complete a single issue. Nearly a ton of printing ink is required for each issue. In the packing and shipping of the papers to the district offices over two thousand packing boxes are required for each issue. Five competent men are employed to run the press, six packers to box up the papers for shipment, and in addition to this, several clerks are required to prepare the copy of death claims, make out shipping lists, receipts, send notices of shipment, and last but by no means least, one man is kept busy most of the time tracing up shipments lost by the railroad companies in transit.

The idea of printing *The Metropolitan* all at one operation was conceived and put into effect by Mr. Masterman, manager of the printing department; he is very proud of the plant and is never so happy as when showing it off. It will pay any one interested in printing to visit the department in its new home to see the novel devices in use there for executing the work. Five years ago this department occupied five thousand feet of floor space, which has been increased from time to time until now twenty-six thousand feet are required.

AMERICAN PRINTERS WILL BENEFIT.

Under the action of the copyright law in the United States, no book is allowed to be copyrighted in that country unless it is set up there. The publishers of the "Encyclopedia Britannica" have considered this question and have come to the conclusion that the only business way in which the next edition can be issued is for the whole thing to be taken over to the United States, set up there and printed; and the sheets to be sent to this country merely for cutting and binding. The last "Encyclopedia," it was estimated, brought in wages to Edinburgh printers about £14,000, and that, of course, will be lost on the next occasion.— *Linotype Notes.*



Photo by R. R. Sallows, Goderich, Ontario, Canada.

WINTER SPORT.

Plate by The Inland-Walton Company, Chicago.

CORRESPONDENCE

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names — not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

SUGGESTION ACTED ON.

To the Editor: TOPEKA, KAN., March 29, 1906.

Acting on Mr. Drew's suggestion, we enclose 25 cents for the National League of American Printing Plants.

CRANE & CO.

IN RESPONSE TO THE "OPEN LETTER."

To the Editor: AYER, MASS., April 10, 1906.

I hasten to send my quarter in response to Putnam Drew's "Open Letter." Please count me in on this and keep up the good work. JOHN L. KENNISON.

THE YOUNGEST EDITOR.

To the Editor: LYNCH, NEB., April 12, 1906.

I read Mr. F. L. Tipton's notice in the April number of THE INLAND PRINTER as being the youngest editor, and wish to state that I started the *Boyd County News*, a seven-column folio, at this place, on May 11, 1905, at the age of fourteen years. I am editor and manager of the same.

H. B. MILLER.

MR. SHERMAN'S MISSTATEMENT.

To the Editor: CHICAGO, ILL., April 17, 1906.

On page 51 of your April number Mr. Sherman in an article on music writes that the American Type Founders Company is the only foundry that makes a complete series of music type. This is an error, as we make two complete series. We think if Mr. Sherman should see the series he would say there is nothing to compare with them in this country. It seems to us that you should make mention of this in THE INLAND PRINTER in some form, to correct the obvious misstatement.

BARNHART BROS. & SPINDLER.

AN INTERNATIONAL PRINTERS' ASSOCIATION.

To the Editor: CLEVELAND, OHIO, April 3, 1906.

The plan suggested by Putnam Drew to my mind is nothing more or less than enlarging the present so-called Master Printers' Association to take in every employing printer in this country and Canada. The dues are low enough for the most economical and high enough to meet the needs of the organization. Such an organization could not fail to consider the problems of the competitive districts and do much good in adjusting moot questions of prices and office management and economics.

A. A. M.

THE NEED OF A NATIONAL LEAGUE OF PRINTING PLANTS.

To the Editor: BATESVILLE, IND., April 3, 1906.

No doubt the Printers' Boards of Trade have done a splendid work in educating their members up to a knowledge of costs, etc. Of course, we all know that THE INLAND PRINTER, however, was the leader in this movement. But there is some awful cutting done yet, as any salesman holding to money-making prices can testify.

While certain houses control matters in their home cities and maintain fair prices, when they are outside they become veritable "pirates." I ran across a case down in Indiana a few months ago which will illustrate this fact. A large firm asked six or seven good, responsible houses for a price on five hundred thousand pamphlets. The buyer told the writer that prices ran from $7,500 to $4,300. The low bidder was a thousand or more dollars under every one. I was curious to know how low a price a supposedly sane firm would make, so gave to this buyer the names of four firms especially equipped with perfecting presses for this sort of work. The result was that the parties making the cut first (who, by the way, do the work on flatbed presses) evidently became frightened and cut the price again to about $3,700! No other bidder, with all their facilities, came anywhere near this price; not by $1,000 or $1,200. Isn't it ridiculous! It will be a long time before some firms learn that work from abroad costs as much to do as work at home. There is no necessity, and surely no profit, in such methods. But what are you going to do about it? SALESMAN.

[Write to Mr. Putnam Drew.— ED.]

THE NATIONAL LEAGUE OF AMERICAN PRINTING PLANTS.*

To the Editor: NEW YORK, April 5, 1906.

After consultation with a number of the owners of printing-plants in New York and other parts of the East, the suggestion is made that "The National League of American Printing Plants" should have a series of vice-presidents, one in every city containing twenty-five thousand inhabitants or over. This would give a local representative in every part of the country, who would also be the head of any local organization of the league deemed advisable. In this connection I would say that Mr. Martin J. Pendergast, now and for the past two years president of the New York Master Printers' Association, will serve as such vice-president for New York city. Furthermore, Mr. Charles E. Francis, a well-known lawyer and present counsel of the above association, would serve as counsel of the league and give it the benefit of his many years' experience in the formation of a constitution and by-laws for the new league and in other matters needed. He is a practical printer himself. Both these men, as well as many others here in the East, are in thorough accord with this new movement.

Now I would suggest that the reader of this letter put his thinking cap on and write to either Mr. A. H. McQuilkin, editor of THE INLAND PRINTER, 130 Sherman street, Chicago, or to Putnam Drew, room 814 Lord's Court, New York city, and make any suggestions that occur to him as to the best method of organization. If it is thought the plans I have already outlined are good, say so. If not, suggest others. What is needed is the best thought of all. If the vice-president idea is a good one, in your judgment, send in the name of some owner of a printing plant in your city for local vice-president. And remember that this league is *American* and will include Canada as well as the United States.

After an organization has been effected, the entire list of officers and vice-presidents can be formally voted on and elected, by mail, and a national headquarters chosen.

*[A few letters only from many that have been received, commending Mr. Putnam Drew's plan of an international league of printing plants, are published in this issue. The increasing number of printers responding to Mr Drew's invitation show that he has struck a responsive chord.— ED.]

Reread the articles already published in the last four numbers of THE INLAND PRINTER and then send in your suggestions — *and your application for membership and first month's dues (25c).* PUTNAM DREW.

"I" AND "J."

To the Editor: ST. LOUIS, MO., April 10, 1906.

The current issue of the *Keystone*, the jewelers' trade paper, has an interesting discussion on the history of the letters I and J. Mr. Charles F. Dyer, of Caro, Michigan, writes to the editor of the above paper as follows:

"A question has come up here that I would like your opinion on. . . . I learned to engrave at the Landis School of Engraving, Detroit, and was taught to make an Old English J thus J. In writing Mr. Landis a letter recently, he asked me what kind of a botch printer embossed our stationery, claiming jeweler was spelled with an I. I spoke to the printer and he produced a font proof of the latest modern Old English, sent by the American Type Founders' Company, giving the letters in rotation, showing J was an I, and J was a J. He also showed me a style-book from these people, in which they had used J for spelling indicated, and J for spelling July. Now I have noticed that engravers use these letters both ways, and would like to know which is correct, and would appreciate any information you might give me regarding Old English."

The views of the editor of the *Keystone*, representing the engraver's ideas of this matter, are interesting. He says: "This difference of opinion between the engraver and type-designer is interesting, and how it originated seems to be a mystery. The accepted distinction, however, is that of the engraver, and the type-designer would do well to get in line. We must, of course, keep in mind that there was no letter J in the Latin alphabet, from which our own is derived, and that J was originally a modification or development of I, both being really the same letter. For instance, in the Scriptural inscriptions, I. N. R. I. and I. H. S., the letter I is the initial of the sacred name, and rightly so, for the use of J for I in the Latin textbooks was an innovation of post-classical times. The American Type Founders Company, when their attention was called to the matter, said: 'The query is an old one and difficult to answer, because there is really no rule or principle that definitely applies to type-designing. All designers of letters will tell you that there is no set rule for guidance in making their designs. Every letter has its own peculiar construction, and its final acceptance is only accomplished after many alterations are made having relation to comparison with other letters, its mechanical build and the field of printing for which it is intended. While the style of type is the conception of the designer, the finished product is often brought about by suggestions from the commercial men who attend to the selling end of the business. It is difficult to make all the characters of a font to follow the general design of the letters as a whole, and many designs of individual letters are made to keep from conflicting with characters that are found to be somewhat similar in other productions. The cap I is especially difficult in this connection, because it offers so few chances to specialize. In the text letters it is most difficult to create anything of a pronounced or typical character, for the reason that there is a range of similarity in all of the styles, but made to look somewhat different by creating heavy and light letters extended and condensed.' As the type-designers, therefore, simply follow the 'rule of thumb,' it would be well for them to adopt the precedent set by the engravers." H. O. SPRING.

Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.



CONSEQUENT on the election of Mr. C. W. Bowerman to Parliament he had, according to the rules of the London Society of Compositors, to resign the secretaryship of that body. Several members stood for the vacant post, and as the result of a second and final ballot Mr. T. E. Naylor received 6,008 votes, as against the next highest, Mr. Vandy, who secured only 2,558 votes. Mr. Naylor has therefore been placed in the position of secretary to this important society by a substantial majority. He is well fitted for the work and is an esteemed member of the London printing craft. While yet an apprentice he won a medal for display composition, and as a journeyman took first class certificate and first class honors in the city and guilds of London examination in practical work. Not only has he been editor of a printing trade journal, but he is the author of a most useful manual, "How to Start in Business as a Printer," a book that has met with a good reception in the trade. Mr. Naylor is a young man from whom great things are expected in his new sphere.

THE National Society of Operative Printers' Assistants are to be congratulated on their success in the Appeal Court against the verdict and judgment given some months ago for Messrs. Ward, Lock & Co., with $3,250 damages, in the trial before Judge Darling and a special jury. It will be remembered that even the Trades Union Congress was dubious about the appeal, because of the cocksure manner in which the original judgment had been delivered, and it is therefore all the more gratifying that the printers' assistants should not only have won on the point that work was purposely spoilt, but more especially because they have to a great extent vindicated the right of peaceful picketing. The opinion of the Court of Appeal on Mr. Justice Darling was deservedly severe, as his judgment was most vindictive. Needless to say the decision has been joyfully received in trade-union circles.

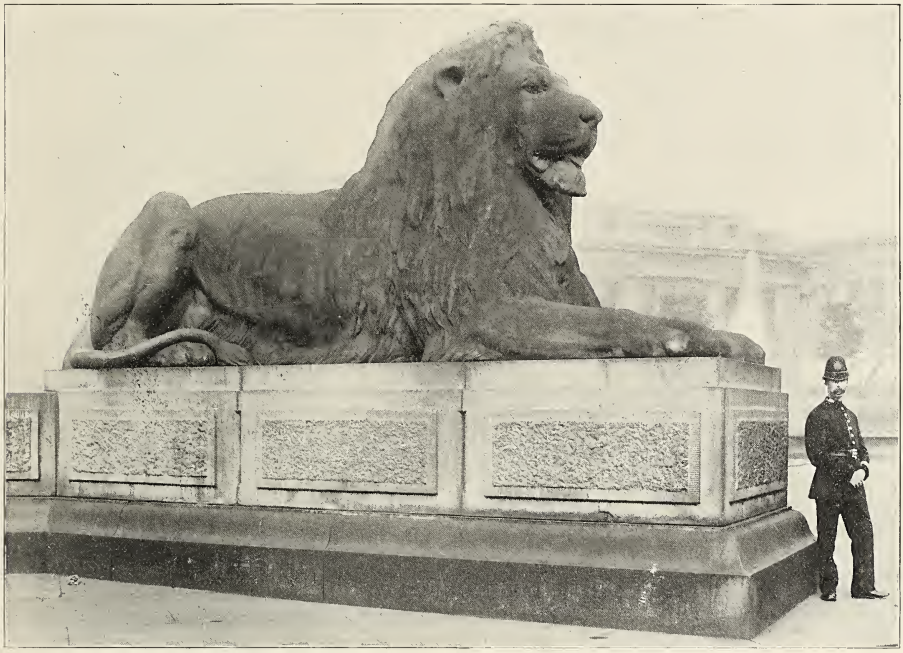
OWING to some difference of opinion as to the methods of charging certain advertisements in some of the London daily papers, negotiations have been carried on between representatives of the Master Printers' Association and the London Society of Compositors, which have resulted in the following minute being signed: "When an advertisement is not required for the day's paper, but to go out in proof, the blocks forming part of it shall not be charged, save those occurring in portions completed by men working on piece; such advertisements to be otherwise charged in agreement with clause 1 of the Appendix to the Newspaper Scale. On appearance any extras beyond the charges on the proof due to insertion of blocks, spacing out, or the introduction of smaller type, shall become payable." The minute is signed by six representatives each of the Masters' Association and the London Society of Compositors, and its effect is expected to abolish the friction that has existed in the past.

IT has of late become the fashion in some quarters to treat the representatives of the press, when attending meetings and functions, as if they were menials or on a par with the shop lads who run errands. As a protest against this conduct the Yorkshire reporters stood on their dignity the other day when the North Riding County Council's Education Committee met at the County Hall. On the reporters presenting themselves at the main entrance they were informed that they could only enter through the back door. Colonel Legard, the chairman, said these instructions had been given by the general pur-

poses committee and he could not alter the arrangement. The reporters declined to submit to this indignity and left the building in a body. Consequently there was no report of the meeting in the paper next day. At another function, a few days later — a public dinner to a prominent man — the reporters were asked to sit on the staircase of the hall, while the dinner was in progress, and then enter for the purpose of taking their notes of the speechifying. Needless to say these reporters also departed in a body. The Institute of Journalists has taken the matter up, and no doubt such rules will be made as will apply to such cases, and prevent the reporting of any meeting where the reporters are not treated in a proper manner.

In a recent issue of the *Daily Express* the following paragraph appeared: "Mr. H. Letts, one of the principals of Charles Letts & Co., printers, of Southwark Bridge, stated to an *Express* representative that it was very hard to find men with even enough elementary skill to work their machines. 'Many other printers I know have had the same difficulty,' he said, 'and I am acquainted with engineering firms who are hard put to it to keep some of their departments going owing to the small supply of suitable men. In my opinion, one of the chief causes of the lack of skilled Englishmen is the almost total extinction of the apprenticeship system; only a very small number of lads nowadays are apprenticed to a trade when they leave school. The failure of the English workmen to take advantage of technical education is another drawback to their progress, and accounts for the invasion of the foreigner into our workshops. The number of skilled English workmen appears to be growing rapidly less each year.'" This statement has caused an intense feeling of resentment among the members of the London Machine Minders' Trade Society, and the secretary of that body, Mr. H. W. Howes, has written a letter to the trade press pointing out that the statement, so far as that society is concerned, is quite an unwarrantable one.

The annual report of the London Society of Compositors is always looked forward to by those in the trade, as it serves as an indication of business conditions during the previous twelve months in London. The fifty-eighth report, which is just issued, records very little trouble between masters and men, the little disputes that did arise having been amicably settled with but little trouble on either side. The finances of the society are a cause of anxiety to the members, for during the year the funds have decreased by $22,500. The decrease is caused principally by payments to out-of-work members, and the provident disbursements have amounted to about $100,000, being the highest on record and more than $18,000 in excess of the preceding year. The total payments of the society averaged about $2,000 for each week of the year. Had such a result been produced solely through exceptional circumstances, the executive say that the necessity for endeavoring to obviate future and similar encroachments upon the funds would have been less pressing; but the experience of the past year's working is but a repetition of that of the three preceding years, and points conclusively to the fact that the income derived from the present weekly contributions is insufficient to fully meet the liabilities which increased benefits have imposed upon the funds. It has long been recognized that with certain benefits the society's liabilities must, in the natural sequence of events, become heavier; and, knowing this, members necessarily,



ONE OF LANDSEER'S LIONS IN TRAFALGAR SQUARE, LONDON.

it is thought, will be readily prepared to deal with the position immediately the necessity for so doing is made clear. In the judgment of the executive the moment for taking action in that direction has arrived, and with the report they have embodied certain proposals having for their object the prevention of further depletions of the society's reserve funds. These will come up for discussion at the next delegate meeting.

THE fifty-second annual report of the London Association of Correctors of the Press has just been issued and it shows that employment on the whole during last year was not quite so good as in the previous year. This is attributed partly to "gradual absorption by large firms of weekly papers, each of which formerly was produced in its own office," and also the increase of "rush" work, resulting in the working of excessive overtime. The total funds of the association now stand at $8,825, showing an augmentation of $1,100 on the year. The total membership stands at 545, an increase of six on the previous year. At the annual dinner of the association, held at the Trocadero Restaurant, under the presidency of Lord Montague of Beaulieu, the donations received for the pension fund for aged members amounted to nearly one thousand dollars.

ALTHOUGH the present Parliament has been returned with an immense free trade majority, yet several minor bodies are continually bringing up the question of tariff reform in the endeavor to get duties imposed upon manufactured articles and machinery imported into Britain. At the annual meeting of the Association of Chambers of Commerce, held at the Hotel Metropole, London, under the presidency of Sir W. H. Holland, M. P., Sir Albert Rollit brought forward a resolution on behalf of the London Chamber, commending commercial treaties as a valuable means to facilitate trade and to secure the benefits of the "most-favored nation clause," which was adopted. A lengthy discussion took place on a motion dealing with foreign tariffs which had been put on the paper by the South of Scotland Chamber. By this it was proposed to ask the government to devise a means for obtaining the abolition or reduction of tariffs imposed by foreign countries, and to receive a deputation on the subject. Lord Avebury hoped the resolution would not be passed, as he would not like to see the Associated Chambers in a position in which they were sure to receive a serious rebuff from the representatives of the government. Mr. Felix Schuster also opposed the motion, and Sir Albert Rollit said he could not support it unless the resolution were amended so as to exclude from the consideration the imposition of import duties on foreign goods. Lord Brassey protested against this reopening up of the fiscal question. In replying the mover withdrew the clause requesting the government to receive a deputation. Thus reduced to a mere expression of opinion, the resolution was passed by a majority of seven. As it was not a two-thirds majority no action could be taken on this vote.

A HOPEFUL OUTCOME.

William Allen White says that the most amusing "personal" note that ever he came across in a country newspaper was that which last year caught his eye while reading a Wisconsin paper. The item was something like this:

"Niels Andersen met with a painful accident last week, a fish-hook becoming entangled in his eye. Niels is being attended by Dr. Phil Morton, who says his eye will come out all right."—*Harper's Weekly.*

Written for THE INLAND PRINTER.

PARIS NOTES.

BY OUR SPECIAL CORRESPONDENT.

THE director of the French National Printing Works, M. Christian, has been placed on the retired list, and his post occupied by M. Dupré. French printers, all of them opponents of the "Nationale," rejoice at the change, not on account of the disgrace inflicted on M. Christian, but because of the publicity which the event gives to the weaknesses of the state printery; in political and administrative circles, where the late director is well known, blame and defense are equally accorded. As



A RUSSIAN CABBY.

readers of these columns are aware, it had been decided to remove the national printery from the historic building in the crowded district of the Temple to a modern dwelling on the southwestern border of the capital. A large plot of land was purchased in Grenelle and a huge printery erected on it. The building has been finished for several months, but has not been fitted for use on account of lack of funds. Criticism has not been lacking all through the building operations, and stories of prodigal wastefulness and stupidities, such as a roof without rain pipes, and upper stories for which the staircases had been forgotten, were freely circulated. The question of voting additional funds came before the budget commission, when M.

Chaumié, who, as *garde des sceaux*, has jurisdiction over the national printing works, brought charges of bad financial management and a lack of administrative discipline against the director. The general expenses for the reorganization of the works, which had been fixed at $25,000, had run up to the sum of $50,000. A charge of increasing the salary of the building inspector from one to two per cent of the value of work examined was also brought, and M. Christian was accused of having inspired a letter sent by the workpeople to the heads of the government demanding, on hygienic grounds, the immediate transfer of the printing works from the old to the new building, and of having further neglected to acquaint the *garde des sceaux* of the nature of this petition. An explanation was demanded of M. Christian, but before he had time to reply the President of the Republic signed a decree placing him on the retired list. Such a stringent measure could not, of course, pass without opposition, and the retired director protested strongly at not having been heard personally before a judgment was passed upon him, at the same time urging that he was not directly responsible for the financial difficulties, that the increase of the inspector's salary was an act of justice, and that the petition he was declared to have inspired had only been made known to him confidentially. This, however, could not change the ministerial decree, and after eleven years at the head of the national printery, and twenty-seven years' service in various government administrations, M. Christian has retired in disgrace. As a result of this scandal it has been proposed to transfer the Imprimerie Nationale from under the charge of the Minister of Justice to the Department of the Minister of Finance.

Oh, those awful Americans! A writer in a Parisian trade journal appears to have passed sleepless nights and given himself much needless worry because two of the principal morning papers, *Le Matin* and *Le Petit Parisien*, have installed fast American rotary machines. The two newspapers in question have now the best equipped machine rooms in Paris, *Le Matin* having three of the latest model Hoe presses, each of them turning out 96,000 copies of a six-page paper per hour, in addition to a number of French rotaries, and *Le Petit Parisien* having four Hoe rotaries of the same model. Both papers have placed their stereotyping departments on an American basis, and with the automatic machines recently installed turn out 180 finished plates an hour, with two molds only. The distressed Frenchman has obviously never visited the installation, for he tells us that the American machines are a failure, his strange belief being based on the fact that since reorganizing its machine room *Le Matin* has neglected to double its number of pages, and *Le Petit Parisien* failed to bring out a special number on the date for which it was announced.

But still the Yankees are invading the land, the latest aggressors being the Mergenthaler Linotype Company. In a modest establishment in the Rue de Provence, where temporary premises have been obtained pending development, an American Barotype, or Linotype Junior, composing machine was fitted up and is now on exhibition to French printers. The new machine appears to have every chance of succeeding in this country, where small and moderate-sized printeries are much more numerous than in the States. Its low cost, too, compared with the big Linotype, is essentially in its favor in France. Even in the capital, only the more important journals have installed Linotype machines, the smaller dailies and weeklies, as well as the mass of provincial sheets, being composed by hand. It appears, however, that even more important developments are to be expected in the realm of the composing machine, news having just come to hand that the Mergenthaler Company intends placing their single and duplex two-magazine machine on the French and English market.

Outside events appear likely to favor the adoption of composing machines in the near future, for, replying to the demands of the unions for a reduction of hours to nine per day from May 7, the Master Printers of France declared that should they be obliged to accede to the demand, they would immediately adopt composing machines for a large amount of work at present done by hand. This is not an idle threat, for all French master printers have been thoroughly convinced of the value of machine composition and only hold on to the present old-fashioned methods on account of the cheapness of labor.

Another state printery which receives almost as much severe criticism as the Imprimerie Nationale is the one in the State penitentiary at Melun. In 1883 a modest commencement was made with twenty pressmen and a lithographic press. Two years later a more complete printery was organized by the manager of the *Journal Officiel*, and after a four months' apprenticeship, criminal compositors turned out a six-hundred-page volume for the police service. Since this date the works have been increased, until now they are completely equipped for work on a large scale; and indeed issue a large number of publications for the Minister of the Interior, the police and the navy. More than two hundred workers are employed, the material is valued at $50,000, two rotaries are being added, and in addition to lithographic, composing and machine rooms, there are binding, gilding, photoengraving and envelope-making departments. The unions are far from satisfied, and have on more than one occasion officially protested against the increase of the prison printing works. It has become a saying among them that in order to obtain work now a printer must first become a criminal.

Owing to the increase in the price of metals, typefounders have been obliged to increase their prices, all type and ornaments now being quoted 4 cents per kilogramme dearer than formerly, and leads and metal furniture have gone up 2 cents per kilogramme. Last month paper manufacturers increased prices all around, and there only remains the printer who is unchanging.

An interesting example of coöperation was displayed in the giving out of the contracts for the printing required for the recent census. At the town of Amiens, the contract was given to the Syndicate of Master Printers, which body proportioned the work out among the different printers of the town, according to the number of workpeople each employed.

Some months ago a Limoges printer was prosecuted and fined for employing women as Linotype operators, the case being brought forward at the instigation of opponents of composing machines and based on a law prohibiting women working in a room where metal is in fusion. An appeal was made, and the higher court has reversed the judgment, declaring that the printer had been unjustly condemned and the law had not been intended to apply to metal employed on composing machines.

PACKAGES OF PRINTING.

If you are getting up advertising literature of whatever nature, booklets, circulars, etc., are designing business stationery or wish ideas in preparing printed matter of any description, send $1 to The Inland Printer Company, and an assortment of specimens of the kind you require will be forwarded without delay.

DISCIPLES OF FRANKLIN.

NO. VI.—JOHN MILTON EDSON.

JOHN MILTON EDSON, born in Warren county, Pennsylvania, October 12, 1832. When about eleven years old his parents moved to Johnstown, Pennsylvania, his father having been appointed collector at that point of the old Pennsylvania canal and the State Portage Railroad over the mountains. J. M. remained a few months with an older brother in Warren and then made the stage



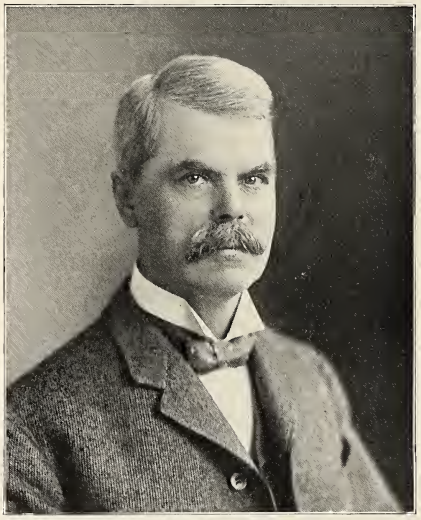
JOHN M. EDSON.

journey alone over the mountains to Pittsburg and thence by canal packet to Johnstown. Attended select school there and afterward the Eldersridge Academy. Name entered in the law office of Hon. Cyrus L. Pershing, but a prolonged siege of malaria caused him to abandon that study.

After several months of enforced idleness because of sickness, entered the printing offices of the *Allegheny Mountain Echo* as an experiment. He took to the work so readily, and it proved so congenial, that he adopted the calling as his life-work. In the fall of 1849 he returned to Warren over the canal and stage route and worked in the Warren *Ledger* office.

The next year he went to Dunkirk, New York, and worked on the *Journal* of that place. Went to the Fredonia *Censor* office in 1851, and remained there until the spring of 1853, when he went to Harrisburg, Pennsylvania, to take position of cargo inspector and clerk in the canal collector's office in that city. Went back to Johnstown in the fall of that year, after the close of canal navigation, and again worked in the *Echo* office. The following spring he came to Chicago and went from there to McHenry county, Illinois, where an older brother was then living. Worked in the *Democrat* office at Woodstock, and afterward edited and published for one year the *Du Page County Journal* at Naperville, Illinois. He then returned to Woodstock and took a partnership interest in the *Argus* office, afterward becoming sole publisher of the paper. In 1857 went to Bloomington, Illinois, and was associated for a short time with Col. Sam Pike in publishing the Bloomington *Flag*. Worked for a brief season in the *Pantagraph* office, and then went to Clinton, De Witt county, and published the *De Witt County Democrat*, under the auspices of the Democratic County Committee, during the Douglas-Lincoln senatorial campaign. Came to Chicago in the fall of 1858 and joined his father in the commission business. Went out of that business in 1860 and worked at case in *Daily Tribune*. Afterward worked on Chicago Directory and at intervals on *Railroad Gazette*. Then took case in the office of the *Chicago Morning Post;* afterward on the *Inter Ocean*, soon after that paper was started from the old *Republican*. Then went to the *Chicago Evening Journal* and worked in that office until the summer of 1865, when he went to Galva, Illinois, and took editorial and business charge of the *Galva Union*, owned by Hon. John I. Bennett. Edited and published that paper for about two years and six months, when he again came to Chicago, in October, 1867, and was engaged by Mr. A. N. Kellogg to take charge of the editorial work in the enterprise then recently started by Mr. Kellogg for the furnishing of semi-printed sheets to country publishers. He remained at the head of the editorial department of that auxiliary publishing house for over thirty-seven years, resigning the position in December, 1904.

Mr. Edson and Miss Elizabeth M. Swails were married at McHenry, Illinois, in 1857, soon after his location at



MICHAEL KEARNS.

Bloomington. Their married life was a very happy one up to the time of her death in 1891. They had six children, three of whom — two sons and a daughter — are now living, with families of their own, one of the sons, Willis S., now being connected with the editorial department of the A. N. Kellogg Newspaper Company, where he has been for over fifteen years.

MICHAEL KEARNS.

Michael Kearns, son of Andrew and Mary (Duffy) Kearns, was born near Strokestown, County Roscommon,

Ireland, October 8, 1838, and came to the United States in December, 1846, landing in New York, where he resided and attended school with his brother John until May 1, 1847, when the family set out for Chicago, arriving in this city on May 22, after a tedious journey by way of the Erie canal and the lakes. A trip from Chicago to London and back can now be made in twenty-one days and is not considered extraordinary.

In the early fifties John Kearns was an apprentice in the office of the *Western Tablet*, a weekly newspaper conducted by Daniel O'Hara, and his brother Michael distributed the sheets to some of the subscribers on Saturday afternoons. In 1855 he secured employment at the *Chicago Times* jobroom as a roller boy on a hand press, on which William McCarty did fine work. The proprietors were Cook, Cameron & Sheahan. Isaac Cook was postmaster at that time, Gen. Daniel Cameron managed the jobroom and James W. Sheahan and Andre Matteson constituted the entire editorial force. Owen Stuart was foreman of the pressroom, assisted by John McCaffrey; W. A. Hornish, foreman of the composing-room, was succeeded by David Lalande, who fell at Chickamauga; Robert Vincent Shurley was foreman of the jobroom, and Conrad Kahler made ready and kept the power job presses in order.

Of those mentioned of the *Times* force nearly all have long since passed away. Col. Owen Stuart is employed in the United States revenue service and lives at Park Ridge. John McCaffery has performed the duties of alderman, county commissioner and other positions acceptably, and at present is an inspector in the city health department. Long may they wave.

In 1857 Mr. Kearns was employed in the *Tribune* counting-room, and was taught the rudiments of a business education by Mr. Alfred Cowles, managing proprietor. Did some collecting from local advertisers and news-dealers, besides minor office work; but preferred the printers' case to a clerk's desk, and followed his inclinations in that direction until the beginning of the civil war in 1861, when he enlisted as a private in the Twenty-third Illinois Infantry, followed Col. James A. Mulligan, and served at Lexington, Missouri, when that garrison was captured by Gen. Sterling Price. After his honorable discharge from the army he pursued his calling, and visited nearly every city of note in the United States and Canada, while seeking employment or traveling for pleasure. Has served as trustee and as secretary-treasurer of the Old Time Printers' Association.

In politics he aims to be independent and to vote for those he believes to be the best men, regardless of party labels. It is his pride and his boast that he, a ferocious free trader, cast his ballot for Horace Greeley for the Presidency.



SUPERINTENDENT'S HEADQUARTERS, ALGONQUIN NATIONAL PARK.
GRAND TRUNK RAILWAY SYSTEM.
Photo by J. W. Swan, Montreal.

BEST YET.

I have THE INLAND PRINTER from Vol. I., No. 1, to date, and I want to say to you that I believe the current number is the best you ever published.— *William E. Meyers, Indianapolis, Indiana.*

MACHINE COMPOSITION

BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

THE LINOTYPE, 1897. By Frank Evans, 100 pages. $3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.— Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.— By E. J. Barclay. 64 pages. $1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.— By S. Sandison. 36 pages, vest-pocket size. Price, $1.

STUBBS' MANUAL.— By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, $1.

CORRECT KEYBOARD FINGERING.— By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FASCIMILE LINOTYPE KEYBOARD.— An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HISTORY OF COMPOSING MACHINES.— By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record — 1822 — down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines — Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, $4; cloth, $3; postpaid.

THE MECHANISM OF THE LINOTYPE.— By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Vise-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, $2, postpaid.

CHANGING EJECTORS. — E. R. Switzer, a Galesburg (Ill.) operator-machinist, writes: "The result of a common mistake which operators make is a broken rail in the distributor-box bar. We have had two in this office. In changing ejector blades they back the machine up too far, letting the second elevator descend from its seat. After the change, when they pull out the controlling lever, the second elevator naturally comes up with a jerk, damaging the bar in the box. It is not necessary to back the machine so far. Let the second elevator remain in its place. Try it and see how nice it is. I am a graduate of the Inland Printer Technical School and proud of it."

LOOSE DRIVING BELT.— C. R. I., Ridgeway, Pennsylvania, writes: "When the machine stands a while it will not start. It has to be forced over. After the first slug it goes all right, but if I let it stand a while, it acts the same way; especially if I throw in the controlling lever. I took out the lever and cleaned it; in fact, I cleaned all the levers and tested them. The clutch holds fast. Sometimes the belt slips off and at other times it will pull round as though the pulley was moving. It seems to be a common fault. I have seen it in two or three shops and asked the machinists about it, but haven't found out the cause." *Answer.*— We can make nothing of your trouble, unless it is due to the driving belt being too loose to pull the machine. You can easily determine that point by noticing if the assembling and distributing mechanisms slow up at the same time the rest of the machine does. If that is the case, it must be the driving belt; otherwise it is in the clutch.

CLUTCH TROUBLES.— T. S., a San Francisco (Cal.) operator, wants to know: "(1) How to prevent a machine stopping with a jerk when completing a revolution when the clutch and inside rim of driving pulley are kept free from oil? The stop plates on this machine are, I think, the old-style hook and catch plate, which are number B B 16 and C 158 respectively. The hooks are slightly worn. Also state the adjustments of the clutch. (2) State how to put a new-style starting lever and automatic stop on machines that have old-style hooks on. (Number in catalogue is B B 201.) Probably at some future date I may change them. (3) How to prevent matrices from jumping out of assembling elevator onto the floor, when assembling a line (this happens quite often) on a double magazine Linotype machine. The points of the chute spring are bent downward, but still the matrices jump out of assembler." *Answer.*— (1) Keep the driving shaft well oiled, otherwise the pulley will bind on the shaft and tend to throw the machine beyond the stopping point when the clutch is thrown out of action. Adjust the clutch by means of the two nuts on the end of the shaft so as to allow 1-32 of an inch between the forked lever and the collar just inside the shaft bearing when the clutch is in action. (2) The new vertical lever and pawls (assembled), the new top bracket for same and bushing (B B 205) for lower end are required when changing from old to new style stop. Also the two new stopping pawls. (3) It is not necessary that the points of the chute spring incline downward; in fact, they should be slightly above the horizontal. There should be a curve or bend in the spring above the point which comes nearest the rails so as to tend to throw the foot of the matrices toward the star-wheel.

TROUBLE WITH THE GAS GOVERNOR.—T. J. B., Grand Junction, Colorado, writes: "Our gas attachment is the latest and my troubles are these: The attachment has a pot-mouth burner running the entire length of pot mouth. When I let this burn it runs the mercury up so fast that the metal in the pot gets cool; that is, it gathers on the pump plunger rod and starts to congeal at the back of pot. However, I can get very good slugs and a good face with it this way; but when necessary to put in pig of new metal it goes cold. I tried shutting off pot mouth burner entirely and in that event the mercury does not have the desired effect and the metal runs hot. I would like to have your idea about the new governor — the desired amount of mercury necessary and also an idea about the amount of weight necessary on the main plant governor. There is an adjusting pin in the pot governor controlling the mercury by screwing in or out, and I have tried it in all manner of ways, but can not get it to the point where I can get a good uniform slug. Will you kindly give me a few don'ts and do's on the subject, so that I may get in the clear with

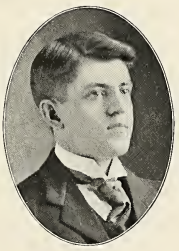
my gas? Also when it is properly adjusted should it not heat the metal in one hour and a half or two hours, or is there some simple way of getting a good hot flame in the morning without monkeying with any adjustments? There seems to be no by-pass on this governor and so far the only way I could get heat up in the morning was by running the mercury down with the adjusting pin and then fooling an hour or so to get it back anywhere near right, and then the metal will not run even." *Answer.*— You may not have enough mercury in the governor to control the flow of gas. When there is enough you can see it through the glass in the side of the governor when the metal is hot. If moving the plunger up and down in the governor does not change the flame under the pot, you may know that you have not enough mercury. Of course, if you put too much in it will shut off the flow of gas entirely. There is no occasion for a by-pass, as when the governor is properly adjusted you get a full flow of gas until the metal heats enough to raise the mercury to the point where it acts on the gas flow. Put enough weight on the main governor to give a full flow of gas without violent blowing when you first light up the machine. However, do not weight the float so heavily as to anchor it. It should be free to move up and down under the pressure of your hand.



A. H. ANDERSON.



HOMER W. WILSON.



H. L. THIBODEAU.



L. J. HODGE.



GERALDINE WRIXON.

GRADUATES MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

PRINTERS AS LINOTYPE MACHINISTS.— The once-held theory that regularly trained machinists were required to run a plant of Linotype machines has so long since been exploded that it would seem puerile to discuss the subject at this time, but a resolution introduced by Mr. Knapp at the last session of the American Newspaper Publishers' Association, held at New York recently, again brings up the matter. The resolution follows:

WHEREAS, An embarrassing situation confronts the publishers of newspaper offices having Linotype machines, arising out of the following conditions:

The number of men competent to care for a plant of machines is limited to the men taken into the Union at the time the Linotype machinists' union was taken into the Typographical Union. Not all of the men taken in were machinists by trade, and but a very limited number were qualified by trade experience to properly care for a plant. The great majority of them were, and are, capable helpers only.

With the largely increased number of plants throughout the country, the capable men have been picked up, and are now employed as head machinists. The other, the helper's class, are also generally employed, and it is the exception that a good man can be had. In many cities there is not a really capable helper, let alone a capable machinist, idle.

Practical experience has demonstrated that printers can not qualify for this work, except as helpers, and not very good ones even to that extent. The situation is growing more acute every year, and a wider field of supply than now exists is imperatively demanded. It is therefore

Resolved, That the Industrial Commissioner of this Association is hereby requested and authorized to endeavor to effect an arrangement with the International Typographical Union whereby the latter can effect an interchange of cards with the International Machinists' Union for this particular line of work.

The assertion that there is any dearth of bench-trained machinists who have experience in running Linotype machines is controverted by the fact that there are a number of such men constantly seeking employment in every large city in the country. This condition is due to the fact that printers are gradually superseding such machinists in the small and medium-sized plants — the machinist-operator, if you please — the product of the evolution which the Linotype instituted. That there is no demand for old-time Linotype machinists is due to the fact that all large printing-offices have for years had Linotype machines; and these large plants, where the services of regularly trained machinists are found desirable, are the only ones where men of this class can find employment. The demand from this source has ceased, and in the smaller plants the versatile operator-machinist holds sway. That the latter is the more valuable employee requires no argument. He daily earns his salary as an operator and when the services of a Linotype physician are required he steps into the breach with his knowledge of the machine. True, there is but a limited supply of these gentlemen, but that is a condition the Inland Printer Technical School is rapidly rectifying. Over six hundred printers have taken the course of instruction given here and graduated as operator-machinists within the past four years. It is also true that these men for the most part could not go to the bench and make anything but the simplest part of a Linotype machine, but that in any case would be a superfluous knowledge, as branch supply houses, efficiently managed and adequately supplied with stocks of parts, are within reach of the most isolated sections, and these intelligent operator-machinists are capable of diagnosing the case and ordering the required parts. Not only is this procedure eminently desirable from a financial standpoint, but is the most satisfactory in results. We submit that the occasion which brought the machinist into the composing-room has passed and with it the reason for his being.

MISTAKES OF MONOTYPE KEYBOARD OPERATORS. — Frederic H. Stevens, St. Louis, Missouri, contributes the following:

"I want that job at half-past two,
Ten-point solid — now it's up to you."
At two fifteen he looked — turned pale,
"I've been setting this stuff with an eight-point scale!"— *Phil.*

The above lines brought to mind very forcibly the negligence of many Monotype operators in this respect, and I recall numerous instances where keyboard operators were, by their slip-shod methods, cutting down the profit for the

"bosses" and lessening their own chances for better conditions. If the operators would be methodical in their work, concentrating their minds on the matter at hand (and the habits are easily learned) there would be fewer "calls" and less comments about the Monotype operators not being worth the same scale as the Linotype men. Have a system in your work, make your changes in a one, two, three order, and in a short time you will stop that bad habit of forgetting to change your justifying scale, not setting your measure correctly, etc. Operators should insist that the foreman plainly mark on the job the size and number of the type, the length of the line and whether leaded or solid; or, better still, the foreman should make

MONOTYPE DEPARTMENT.

.....190..

Galley No. ..... Job. No. .....
Name of Job.....
Face..... Point.....
Mold.....Point. Set.....
Measure in Picas.....
Allowance for Squeeze.....Point
Single Justification.
Double Justification.
*Change in Die Case.....
Remarks: .....
.....
Operator .....
* Mark "Yes" or "No." If any changes, mark on layout chart and send it in with spool.

FIG. 1.

out a job ticket (after the style of Fig. 1). It will do away with a great deal of trouble, as the foreman's instructions then can not be misunderstood. The fact that it is impossible for the foreman to examine the work of the operators until it is put on the caster should make this imperative. In passing let me decry that habit of many foremen of not having a head operator. Many offices, possibly to avoid paying an extra dollar or two, give out the work as each operator is through with his take, which I believe is wrong. An operator that is a good keyboard man, one who has the style of the office down pat, should be given the copy of the job. In the first place there are many little short cuts that a good operator can take advantage of; if two or more men are working on the same job he can regulate the style so that the proofreader does not have to choose between two or more distinct styles; then again, by glancing at the operator's keyboard he can tell if the job is being set with a wrong layout, wrong justifying scale or if the measure is set properly. Just as the best offices are having men who can design work and sketch diagrams for the job compositors, so is the head operator needed to see that the casters have work that will keep all of them running and not have all the work piled on one machine, when by a little judicious forethought work could be arranged on the keyboard so that all of the casters could be kept pounding away. But I digress. Now, operators, when you have received your instructions on a job and they are fully understood, take your layout-book and find out if your keyboard corresponds; do not take it for granted that it does; you might be mistaken and it only takes a minute or so to be sure. The layout of the keyboard is one of the things that is very apt to be off; here is where the casterman should work in perfect harmony with the operators. It is up to the operator to see that his board is laid out according to the standard layout. If special characters are to be used, mark them plainly on the layout chart (Fig. 2, which should *not* be printed on the same sheet as Fig. 1, for the reason that it is often necessary for the casterman to change his die-case back to the standard layout, and then in going back to the job he has to spend some time in looking for the first spool of the job to get the layout chart, as it is customary only to mark the first spool. By having it separate the casterman can always have it before him, and after finishing the job can attach it to the last spool). Too much stress can not be laid upon this matter of marking your layout chart correctly — take your time! Be sure your board is right and then mark your chart accordingly. Then you will not be frightened by that "bugaboo" of all operators — "dirty proofs." Next change your justifying scale; be careful — do not get a 9¼ for a 9¾. Be sure that the pointer is set right, some justifying scales vary. The reason for this is that some operators are careless in putting on the justifying scale drum and force it down on the driving pins, causing the lower head of the scale to bend. By using a screwdriver or reglet and gently forcing the flange down over the pins, one after the other, this can be avoided. Number three is your measure. Never use a dirty measure chart (table for setting lines of any face to even pica ems), the figures are generally small, and unless clean and distinct

MONOTYPE DEPARTMENT

LAYOUT CHART.

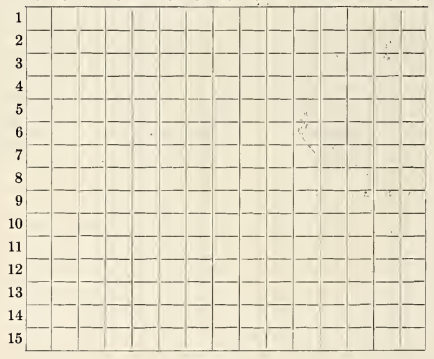


FIG. 2.

mistakes will happen. If you have only a few sets, blacken out all the sets you have no use for; it will prevent you from getting into the wrong column. Always test your measure; this only takes a few seconds and you will find a reward in not having to reset your job; and, worse still, losing your position. Operators on the style "A" boards should be careful and not allow their left-hand em-rack-stop to jump; a strong rubber band placed over the knob of the stop and stretched tightly back to the adjusting screw will hold this in a firm place and prevent many accidents of this kind. Now, after carefully noticing that your paper is feeding straight, you are ready to start on your job. When the operator has had these three principles thoroughly inculcated into his system, when they come, by intuition, in that one, two, three order, he will find that his habit of forgetting to change his justifying scale will be a forgotten pastime, and work on the keyboard will be easier and there will not be so many jobs to be reset. The "boss" will be gratified at the increased production, and that is the main thing to do, have him wearing "the smile that won't come off." It will mean more money for the proprietor and more, in time, for the operator.

NEWSPAPER WORK

BY O. F. BYXBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Byxbee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

GREAT success is crowning the efforts of the St. Paul *Dispatch* to interest the boys of the city and vicinity. The first of a series of "Jack Kneiff" shows was recently given in the Metropolitan Opera House at which there were over three thousand boys and nearly four thousand more were turned away unable to gain admission. The show consisted principally of the nature of a manual training school, where the boys were shown how to make boats, sleds and the like, and is the development of a weekly feature in the *Dispatch* of a similar nature. This is a form of "general publicity" advertising in the interest of the circulation department, from which direct financial results can not be counted, but it is to be noted that papers that once start a plan of this character are so well satisfied with its profitableness that it is developed and continued indefinitely.

WILLIS B. POWELL has just issued the first number of the St. Petersburg (Fla.) *Independent*. It is one of the best examples of a weekly from a local news standpoint that I have seen.

AD.-SETTING CONTEST No. 19 closed with 191 contestants, who submitted 242 ads., making it one of the most successful yet conducted. Letters of congratulation and hearty endorsement of this plan of education in the proper construction of an ad. were unusually numerous. Packages of ads. were sent to each contestant as soon as possible after the close of the contest and it is expected that the complete result will be ready in time for our June issue.



SOME PRINTERS' REPRODUCTIONS.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLEN'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

STARTING A PRINTING-OFFICE.— By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, $1.50, postpaid.

GAINING A CIRCULATION.—A book of 50 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, $1, postpaid.

ESTABLISHING A NEWSPAPER.— By O. F. Byxbee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, $1.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, $3.50, prepaid.

PRACTICAL JOURNALISM.— By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, $1.37, postpaid.

THE Baltimore *News* has a good plan of convincing advertisers that it has nothing to conceal in regard to circulation. It issues an annual pass to its pressroom. On the reverse side is shown an illustration of its building and information as to the best hour to see its presses in operation. There is something about a "pass" that tempts any man to preserve it, and these little cards will undoubtedly be found in the pockets of many of Baltimore's business men, a constant reminder of the *News* and its circulation.

NEWSPAPER CRITICISMS.— The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Salem (W. Va.) *Herald*.—A neat and well-arranged paper.

Mascoutah (Ill.) *Anzeiger*.—Your paper was criticized last October.

Altoona (Pa.) *Morning Tribune*.—A progressive daily, well arranged and nicely printed.

Markdale (Ont.) *Standard*.—Your paper is greatly improved. A little more ink should be used.

Yorkville (S. C.) *Enquirer*.— Newspapers have changed greatly since the *Enquirer* was established in 1855, and some of the changes are certainly

improvements. Would it not be better to get in line, using modern headings and a modern make-up?

Cassopolis (Mich.) *Vigilant.*— Two prominent heads are needed on your first page. Otherwise a very creditable paper.

Boating, Cleveland, Ohio.— It would be hard to improve upon *Boating,* as it is in every way neat and attractive. The placing of the names of

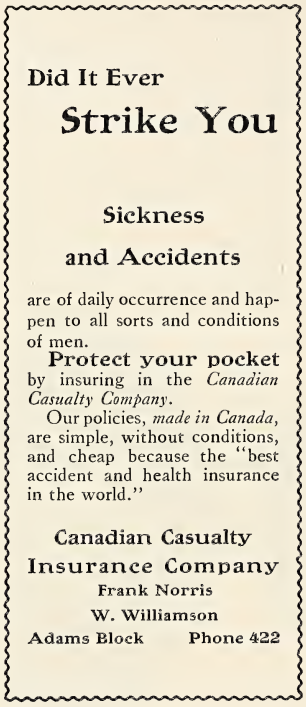


Fig. 1.

contributors of articles to one side is very unusual, but it could not be called inartistic.

Commercial, Winnipeg, Canada.—An exceptionally creditable trade paper — one of the finest Canadian publications I have seen.

Swift County Monitor, Benson, Minnesota.— Box-headings on correspondence would be improved by using larger type and less prominent border.

Merchants' Guide, Philadelphia.— This publication is not up to Ware Brothers Company's usual standard of presswork. There are some high slugs, and the color is decidedly light on some pages.

West Union (Va.) *Record.*— More care should be taken in the make-up of plate matter. Columns should be even at top and bottom with type matter and the articles just as carefully arranged according to size.

Independence (Kan.) *Reporter.*—Your "Oil and Gas" number is a particularly creditable special edition, especially when the conditions under which it was printed are considered. The paper is a good quality of machine-finished, while the majority of such editions are printed on supercalendered stock, but very seldom on enameled.

Muscatine (Iowa) *Journal* and Ottumwa (Iowa) *Courier.*—These papers are both sent by the same person and have the appearance of being both printed at the same office. Both are equally well printed, which is not any too well, and both have large display heads at the top of each column on the first page, which is a poor arrangement. The *Courier* has the better arrangement of dashes between the different parts of the headings, although in each case the dashes should be of the same length all through.

Good Ad. Composition.—Good ad. composition requires much more than a knowledge of sizes of type and the meaning of a "point" and an "agate line." Yet with this knowledge as apparently their entire stock in trade, there are many so-called ad.-writers doing business to-day who cause ad.-compositors to use very strong language. These remarks are particularly apropos of a piece of copy submitted by an "ad.-writer" to the *Sault Express,* Sault Ste. Marie, Ontario. I regret that I can not reproduce the manuscript copy with all its intricate markings and instructions, no less than twenty-seven figures being used to designate sizes of type and agate lines of blank space. However, No. 1 is the ad. itself, set according to instructions. There is a sameness about it that is decidedly monotonous; just imagine how distinctive each ad. would be if an entire page was set in this manner. No. 2 shows how a little common sense makes a good ad. out of the same copy by making a few slight alterations. This is only one of similar difficulties which confront the compositor of to-day — he is compelled to follow copy to his own chagrin and embarrassment. An ad.-writer who can not accurately see in his own mind just how an ad. will appear when set in the type he has selected should refrain absolutely from giving instructions, unless it be to designate what particular line or lines should be brought out



Fig. 2.

prominently. A compositor with a year's experience and the average amount of common sense will set a better ad. than the inexperienced ad.-writer, and every ad.-writer lacks vitally necessary experience if he has never handled the type in the ad. alley. I am in receipt of several excellent specimens of ad. display this month, the best coming from Vance R. Noe, of the Estherville (Iowa) *Enterprise.* Fairly good ads. were submitted by Edward W. Jones, of Philadelphia. M. J. Gowan, of the *Swift County Monitor,* Benson, Minnesota, requests an opinion on two ads., neither

of which is very good, although the one set in the shorter space is the better. A large lot of numbered ads. submitted by "P. C.," Jacksonville, Florida, show none that are particularly effective.

THE Vicksburg (Miss.) *American* introduced a novelty into its columns on "Pennsylvania Day" by substituting for all short dashes between the headlines the abbreviation, "—Penn.—," and for the brass dashes separating the articles, "—Pennsylvania—" was used. The effect was rather puzzling at first, or until the intention was fully realized.

J. L. GREENLEE, publisher of the *Clark County Courier*, of Kahoka, Missouri, asks for a rate card for his weekly, which has a circulation of eighteen hundred. Rate cards meeting various requirements have been published in THE INLAND PRINTER from time to time, and one of these, which appeared several months ago, is reprinted below:

	1 wk.	2 wks.	3 wks.	1 mo.	3 mos.	6 mos.	1 yr.
1 inch	$0.50	$0.80	$ 1.10	$ 1.40	$ 3.00	$ 6.30	$11.00
2 inches	.80	1.40	1.95	2.45	6.30	11.00	18.75
3 inches	1.10	1.95	2.70	3.35	8.60	14.75	26.00
4 inches	1.40	2.45	3.35	4.20	11.00	18.75	32.00
5 inches	1.70	2.95	4.00	5.05	12.75	22.50	38.00
6 inches	1.95	3.35	4.65	5.90	14.75	26.00	43.00
8 inches	2.45	4.20	5.90	7.35	18.75	32.00	53.00
10 inches	2.95	5.05	7.00	8.80	22.50	38.00	61.00
20 inches	5.05	8.80	12.00	15.00	38.00	61.00	96.00



HATRED of success rather than love of one's fellows is the inspiration of many so-called reformers.

PRESSROOM

BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.— See Process Engraving.

PRESSWORK.— By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, $1.50.

THE HARMONIZER.— By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, $3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.— By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.— Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

PRACTICAL GUIDE TO EMBOSSING.— By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.— By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

PROPER WAY TO SET GRIPPERS. — J. A. G., St. Augustine, Florida, writes: "To settle a dispute, will you please answer the following questions: Which is the proper way to set the grippers on a cylinder press? Should they be set to the pressboard or set after the required amount of tympan has been put on? What is the difference in the two ways?" *Answer.* — The grippers should be set after the full and complete amount of packing has been applied. If the grippers are set before the cylinder is fully dressed, the additional tympan will force the cam away from the stop. This will cause the grippers to dig into the sheet and throw it out of register.

TROUBLED WITH SMUT SHEETS STICKING. — E. K. M., Chillocco, Oklahoma, writes: "I have considerable trouble with the slip-sheets sticking when printing from solid tint-blocks, such as the enclosed sample. To reduce the inks I use 00 varnish and japan drier, equal parts. I have also used gloss varnish and japan drier. Then again, I have tried linseed oil and still the slip-sheets will stick. I have tried changing the stock in slip-sheets and find the hard manila does not do as well as the soft print. What is the best reducing medium when running heavy tint-blocks or forms of that nature?" *Answer.*—You have used too much drier, causing the ink to pile on the surface of the

stock. It is seldom necessary to add much drier to the ink when printing the first color of a color job. Neither is it advisable to use gloss varnish as a reducer for tints, as it is a drier in itself. Most light tints, such as light green, buff, etc., can be run without smutting, provided, of course, that the inks are properly prepared. Tints for enameled or supercalendered papers work more freely and cover better when the ink is thin; indeed, tints of the most exquisite coloring are oftentimes prepared by using varnish as a base. When solid inks are used as a base for tints and reducing is resorted to, it is wise to add a small quantity of drier. Reducing compound or 0000 varnish is most generally used for enameled papers.

Order of Colors in Four-color Work.— J. O. P., Watervliet, New York, writes: "I am sending you under separate cover a sample of four-color work. Will you kindly explain how this job must be run to get the colors correctly?" *Answer.*— When running colorwork it is always best to run the light colors first. In the specimen referred to, the colors should be run in the following order: yellow, light blue, red and, lastly, black. The first color should be dry before the second color is run. The yellow and light blue should be run fairly thin to obtain the best results; the red and black should be run as near the straight color as possible.

A Shifting Tympan. — A. J. H., St. Louis, Missouri, writes: "Will you kindly state through the columns of The Inland Printer what is meant by 'shifting tympan?' Also, can it be attached to any make of presses?" *Answer.* — Rolls of manila paper are journaled on the inside of the impression cylinder and carried through the openings in the cylinder and across the impression surface, the other end winding to a roll in another space. These rolls are so adjusted that a roll of paper winds up on one roll and unwinds from another, traveling across the impression surface, presenting a new tympan as often as may be necessary and doing this automatically. By the use of such a tympan, the finest kind of work can be done and the tympan can be set to shift as often as may be found necessary in general practice. The tympan remains stationary as many revolutions of the machine as it is possible to run without showing "offset" on the work. It is then that the shifting mechanism operates, unwinding from the manila roll sufficient clean paper to cover the impression surface, and at the same time winding up the soiled portion on the receiving roller, completing the change in the brief interval between two impressions without stoppage of the machine. After a day's run, the rolls of tympan paper are taken out of the cylinder and replaced by clean ones, after which the machine is ready for another day's run. The change can be made in five minutes. The rolls of soiled paper are not discarded as waste paper, but are allowed a few days to dry, after which they can be used over and over again many times. This can not be attached to any machine, as special fittings are necessary and these are not adapted to other makes of presses.

A Few Questions.— J. F., Boston, Massachusetts, asks the following question: "What is the reason that some pressmen oil their packing on three-color work? The packing is constructed of the so-called hard packing, i. e., medium top manila sheets well oiled and which are drawn taut over each overlay. Three overlays usually complete the make-ready with a few extra sheets of S. & S. C. book paper. These are also oiled. Another pressman will construct his packing as follows: One extra heavy card manila drawn taut over the pressboard. This is oiled. Seven or eight sheets of S. & S. C. book paper, and a heavy top sheet of manila, which is also oiled. The above methods are supposed to be hard packing, but I would call it a medium packing, consequent from oiling, which only tends to make it soft and unfit for cutwork. (2) I have found from experience, when renewing a manila top sheet on some presses, that the register will vary on five hundred to one thousand impressions, gradually resuming its normal register. I attribute the variation to the setting of the grippers and impression into the new top sheet. (3) A pressman when starting on a run adjusts his fountain feed, say two teeth. He will have to increase his flow of ink gradually as the impression sets. Of course much depends on the nature of the stock. He may have reached the full limit of notches for the feed supply, and may then have to open the keys of the fountain, which will then probably feed the full amount of color throughout the remainder of the run. Now, is there a safe and sure method to adopt in regard to regulating the right amount of feed supply when running a yellow, or other luminous colors; that is, to hold the color up to the O. K. sheet, which often looks the same when moist, but is several degrees lighter after drying out." *Answer.* — (1) When preparing a packing for the finer grades of printing and especially on close register work, it is best to oil the entire tympan so that it will not swell from moisture. Oil does not soften the packing; on the contrary, the paper becomes harder and the tympan may be drawn more firmly when oiled. The method of constructing the packing on cylinder presses depends largely on the depth the cylinder is cut. This varies considerably, even on the same make of machines. The writer, having access to several machines from the same factory, recently measured the depth of each. The smallest amount of packing required on any machine measured .035 inch, while the largest amount necessary measured .055 inch, a difference of .020 inch. Few pressmen would attempt to construct a packing solely of manila on a press which is turned down to the depth of .055 inch, while on the presses turned down to .035 inch, manila would be the most desirable packing. (2) The register is changed slightly by adding to or renewing the packing. Loosening the drop guides or raising the feed-board, after the job is once started, will also throw out the register in colorwork. (3) When starting a job, regulate the fountain to take at least a five-tooth supply, and when sure the flow is even, a single tooth may be taken off or added, as desired. The greater the latitude for variation the easier it will be to control the color. In no case, however, can the fountain be depended upon to maintain an even color throughout a run, as the ink will not flow so freely after running a short time. It is then of course up to the operator to follow and regulate the fountain accordingly.

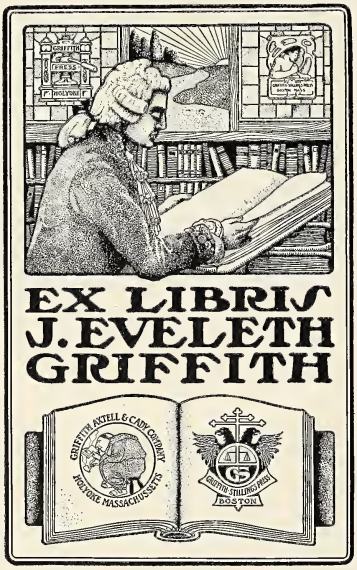
Hints for Securing Register.— Pursuant to the many queries received by this department, regarding register on cylinder presses, the following suggestions should be of interest to most pressmen: Upon receiving a form, the first duty of the pressman is to bring the cuts it may contain to type height by underlaying those that are low and dressing off those that are high, so that the surface of the form may be level, and as evenly "high to paper" as possible. Not until after this is done should make-ready begin on cylinder. An even, smooth form makes it possible for the pressman to obtain an even, smooth cylinder, and both are necessary if good register is required. He should never forget that he is working upon a machine whose every motion is calculated to a nicety so fine that a thickness of tissue paper makes a marked difference in adjustment; and this same difference may change the

relative motions of the bed and cylinder, or rather, the form and tympan surfaces (which must travel together with absolute precision), and thus make a variation in register. With the bearers type-high, the cylinder should be set upon them firmly enough to hold the cylinder there when the form is properly made ready. In this case, the tympan will not be higher than the bearers on cylinder; that is, if a straight-edge be placed firmly upon the tympan it should be even with the bearers on cylinder; or, as some prefer, one sheet of paper higher than the bearers. This is the proper (and only) pitch or line at which the tympan surface of the cylinder will travel uniformly with the surface of a type-high form on the bed. If the attempt be made to make the form ready without paying attention to the height of cuts, it may be found that certain spots in the tympan will be higher than this line, and other spots lower. The low cuts may slur. The high cuts will give a larger impression than they actually measure, because at these places it is impossible for the printing surfaces to run together with exactness and one creeps upon the other. This has a tendency to swing the sheets, as at the surface of a high spot the tympan and form are not running in unison and the sheet must give. Tapes and brushes may be put on; the bands set so tightly as to mark the sheet; the grippers set perfectly; guides changed, and all else done to overcome the fault, but the sheet will continue to swing, because one portion of it must travel faster than the rest. Cutting out the tympan where the impression is too great, or overlaying with heavy paper where it is too light, will not only make register impossible, but it will make it difficult to keep the tympan on the cylinder, as it must twist under the strain of the impression. At the uneven portions there is a drag or a push, instead of the firm, steady and direct touch that would ensue were the surface of tympan and form traveling together as they should. If there be a border or rule around job or cuts, or a page with an open center, this unevenness in make-ready not only renders register impossible, but produces a disfiguring wrinkle on the edge of the sheet farthest from grippers. The only remedy is proper make-ready. This defect is very noticeable on map and similar work. To prevent the wrinkle or buckle (for if it exists there can be no register) see that the plates are absolutely type-high, and so nearly uniform that a smooth, even and perfect impression can be taken. Look after your air, especially on front center. Many pressmen change the speed of their machines without changing the plungers. These should always be just right for a free and easy reverse; and each form of a job in several printings should be run at a like speed. See that hinges to feed-board are always well screwed on, and that there is no play of any sort in the board. A feeder may stand for a few minutes away from the board and then for a while lean against it or on it. If movable in any degree, the side guides particularly will be affected, and tongues may not act properly under lower guides. Variable power is a frequent cause of poor regis-



BRIDAL VEIL FALLS, KAGAWORG, MANITOULIN ISLAND, NORTH CHANNEL OF GEORGIAN BAY.
GRAND TRUNK RAILWAY SYSTEM AND NORTHERN NAVIGATION COMPANY.
Photo by J. W. Swan, Montreal.

ter. This should be uniformly steady. Use double belting of best quality and keep belt tight. Tighten it instead of applying grease. Imperfect chases cause loss of register as completely as badly trimmed cuts. See that patent quoins on registerwork do not lock agains the steel of the chase, or against metal furniture. Interpose a bit of cardboard or reglet. For close work, a straight-away coin is the best; that is, a quoin with a screw in the center that pushes directly outward. Quoins on the wedge principle, like the Hempel, have a forward and backward thrust, and it requires great care to lock these twice alike without more or less twist. If it is necessary to unlock a form so locked, keep the run following separate, that guides may be changed on the next color, or on the turn if necessary. If a gripper has been mashed or straightened in any way, bring it back to its original shape, or throw it out of action by lifting it a little before running close work. A gripper not in perfect shape may push the sheet back from the guides. Remember that a flat, even form, and a tympan that permits the sheet to lie closely and evenly not only affords the best presswork, but is conducive to good register. In giving the foregoing, it has been assumed that the pressman has properly dressed his cylinder; that the pressboard lies firmly and flatly upon the metal; that his sheets are of the right number, and of even, smooth stock; that the draw-sheet and tympan are uniformly tight, without buckle or wrinkle, and lying as flat upon the cylinder as the metal itself. Only such conditions make for good register. If these are not obtained in the beginning, whatever is done later can not overcome the fundamental defects.



NEW BOOKPLATE OF J. EVELETH GRIFFITH.

I AM a lad of twenty-one, who has been a reader of your magazine for nearly five years. I trust to ever continue reading your magazine and know that in the future, as in the past, I will be greatly benefited by reading THE INLAND PRINTER.—*Chester A. Lyle, Freeville, New York.*

McKEE BARCLAY, CARTOONIST.

BY STRICKLAND W. GILLILAN.

EVERY citizen of Baltimore who in the afternoon rides on a street-car or stands on a corner waiting for one, who has an idle moment in his shop, or in some one else's shop, waiting to be waited on — every mother's son and daughter and every aunt's nephew and niece of them — is possessed of a copy of the *Baltimore News*, or is rubbering over the shoulder of some one who has a



MC KEE BARCLAY, CARTOONIST.

copy of that sheet. And the first thing any of those proud possessors or humble rubberers does is to see "what's Barclay got to-day?"

The last page of the *Baltimore News* contains every day a cartoon, with the signature of that gentleman, and in nine cases out of nine the cartoon contains an idea portrayed with the odd combination of subtlety and clearness — subtlety to please the keenest and clearness to strike the most obtuse between the eyes. The idea is usually unique in its conception, yet so palpable when once it is exploited in Barclay's bold, yet artistic lines, that the beholder involuntarily exclaims to himself: "Well, I'll be dogged! Why couldn't I have thought of that?" And the paragraph, poem or picture that so impresses humanity is the ideal in its specific line. It has hit the universal, and that means success.

The peculiar geographical position of Baltimore makes her newspaper men labor under such restriction as no other city of Baltimore's size anywhere has known. The men who work in this field must do so with a constant knowledge that their work is for the local field primarily and that only extraordinary brilliancy or a particularly universal hit can ever hope to reach the garish day of

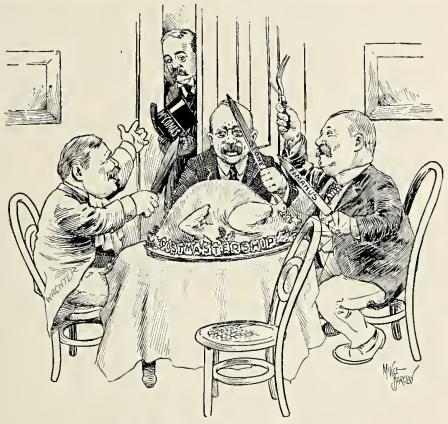
wider publicity. Under this handicap, Mr. Barclay works with zeal, filling his niche to overflowing and giving to the people of Baltimore a service second to none in the entire country. His cartoons do, in the most satisfactory



THE PASSING OF THE PLAGUE.
Cartoon by McKee Barclay.

manner, everything a cartoon was ever intended to do. His pictures are editorials with the weight of the leader and the pungency of the paragraph. They speak for themselves, and so great is their merit that they are copied far and wide throughout the country.

Like all good cartoonists, Barclay has a personality that has even the best of his published work beaten many many city blocks. And to know the best and most delight-

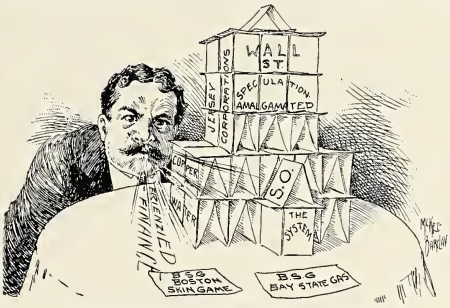


CARTOON OF A LOCAL POLITICAL SITUATION.
By McKee Barclay.

ful of him one has to know him, with his quaintness and his keenness. Every sentence is a cartoon, visible as well as audible. He is a humorist of the finest, truest type, and can write as cleverly as he draws.

Here is a Bordenized ante-mortem obituary of him: He was bred in old Kentucky. First endowed with his services the Princeton (Ky.) *Weekly Banner*, in whose office he up-ended the elusive types, occasionally making a woodcut on white pine. None of these first cuts is in the Congressional Library collection, so it's no use to look there for them. Being entirely impartial, he amputated himself gently but firmly from the *Banner* and tackled his first daily job on the *Paducah Standard*, as solicitor, making free-hand drawings of the names of people who wanted to subscribe or advertise. Occasionally when some one hadn't treated him right he would have revenge by making alleged likenesses of the offender — he having then fallen upon the Hoke chalk-plate method. After the publication of one of these the offender either suicided or reformed.

Went to the Louisville *Times* and *Courier-Journal* in '87 and in '88 to the Montgomery *Dispatch*, where he made



LAWSON AND THE WALL STREET HOUSE OF CARDS.
Cartoon by McKee Barclay.

chalk-plate pictures again — couldn't stop him — and stereotyped them himself in a casting-box of a special pattern, made for himself by himself. Sawing them out with a cross-cut saw without the aid of a vise (Mr. Barclay is even yet free from vices), he guessed the width and sometimes came within an em or so of a column or two-column size when he was lucky or "had his eye with him."

The paper got into financial difficulties and Barclay, though the paper could stand for the cuts he had made,



A WASHINGTON BIRTHDAY CARTOON OF SENATOR GORMAN AND HIS SON.
By McKee Barclay.

couldn't stand for the ones they made in his salary. The paper failed to square up any better than the engraver's eye-measured cuts. Then the artist borrowed enough money to take him for a visit to his nearest relatives, at

Bowling Green, Kentucky, with whom he stood a good prospect of making an extended visit. To his surprise an enterprising man with a daily paper — Col. John B. Gaines, of the *Park City Times* — gave him a place the very next day after he had landed, and before he had had a chance to spend even half of the $1.75 with which he had lit. Later he ran an illustrated weekly with Euclid C. Cooksey, at Bowling Green. The weekly caricatured and roasted with all the zeal of the tyro proprietor everywhere, until it became distinctly visible that the sheet could support but one person. Then Barclay sold out his interest to Cooksey, having a balance of $19.75 after paying all debts — "the record for all time for all men who ever ran a weekly," says Barclay seriously.

Next he went to North Carolina, where he was draftsman in an architect's office, running an engraving plant at his nooning hour, making all chalk-plate work and farming out the rest of it to a Philadelphia firm. In April, 1891, he went to Baltimore and worked one year for the *World* as an artist, reporter and telegraph editor. Tiring of this life of leisure, he went to the *Herald* of the same city, as reporter, until a self-illustrated Sunday story attracted the attention of the then managing editor, A. B. Cunningham, when he was put on Sunday specials. Then, like Mr. Finney's turnip, he grew and he grew. The *Baltimore News* made him an offer to do general illustrating, but that paper was in the midst of its Gorman-Rasin fight, so nothing was more natural than that Barclay's cleverness should enlist itself in the form of effective, straight-from-the-shoulder cartoons. And didn't he enjoy it — the work for which he was made! He calls it drifting, as we all do when the inevitable current of our life sweeps us into something. Since that time most of his work has been for the *News*. Once he went to New York, with his *News* job held open for him. He soon decided that distance lent enchantment to the Gotham field, and put himself a whole lot more than "forty-five minutes from Broadway." In 1900 he went to St. Louis and stayed a busy year as editor of the comic supplement and manager of art and engraving departments for the *Star*. He persuaded this paper to syndicate its supplement on a large scale and made it possible profitably to do so, by means of a labor-saving color device of Barclay's own. In 1901 he came back to the *Baltimore News*, in response to an offer, and, as he says, "I am on the third floor with a good north light, still."

He does a great deal of book illustrating, etc., outside of his regular cartoon work, for he is an indefatigable plugger, never hurrying, but turning out an incredible amount of excellent work. Cartoonists can not be compared, but there are no better than McKee Barclay.

Like most of the other really successful fellows, he has a wife and family that any sane man would be proud of, and Barclay is sane to the thirty-third degree. His brother Tom (art signature, "Tom Bee") does excellent cartoon work and comics in a decidedly individual line, also doing legitimate illustrating and caricatures of high standard.

McKee is struggling beneath the advanced age of thirty-six years, and his best work is yet in his rosy-hued future.

THE VERY BEST MAGAZINE.

I think THE INLAND PRINTER is the *very best* magazine I receive, advocating as it does the highest principles of the printers' art. To me, THE INLAND PRINTER is absolutely indispensable.—*Albion B. Campbell, Kansas City, Missouri.*



BY EDEN B. STUART.

Under this head will be discussed ideas from all classes of printers, rich or poor, large or small, prominent or obscure, so long as their ideas are of practical value and along this particular line of work. Do not hesitate to consult this department on any problem of estimating that may arise. Printers are urged to forward particulars of any work that will prove of interest and assistance to the trade and to the sender. Address all communications to The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

HINTS FOR YOUNG PRINTERS UNDER EIGHTY.— By W. A. Willard. A discussion of the cost of printing. 50 pages, paper, 50 cents.

EMPLOYING PRINTER'S PRICE-LIST.— By David Ramaley. New edition, based on nine-hour day. An excellent book to use as a basis for correct prices to charge on any kind of printing, $1.

CHALLEN'S LABOR-SAVING RECORDS.— Advertising, Subscription, Job Printer's. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING.— By J. Cliff Dando. The scope of this book is indicated by the title. Has been unqualifiedly indorsed by users throughout the world. $10.

ORDER BOOK AND RECORD OF COST.— By H. G. Bishop. The simplest and most accurate book for keeping track of all items of cost of every job done. Contains 100 leaves, 10 by 16, printed and ruled, and provides room for entering 3,000 jobs. Half-bound, $3. Must be sent by express at expense of purchaser.

CAMPSIE'S VEST-POCKET ESTIMATE BLANK-BOOK.—By John W. Campsie. By its use there is no chance of omitting any item which will enter into the cost of ordinary printing. By its use a proper profit can be made on every job taken. Used by solicitors of printing in some of the largest offices in the country. 50 cents.

STARTING A PRINTING-OFFICE.— By R. C. Mallette. Contents: the Printer as a Business Man, Selection and Location of Plant, The Business Office, The Composing-room, The Pressroom, Light, Power and Heat, The Stockroom, The Book of Samples, Entering the Order, The Job in Process, Determining Cost, Bookkeeping, Preparing and Giving Estimates, Collections and Payments, Advertising and Office Stationery, Employer and Employees, Small Economies and Time-savers. 88 pages, cloth, $1.50.

PRINTER'S ACCOUNT BOOK.—A simple, accurate and inexpensive method of job accounting that is in use by hundreds of prosperous printers. It shows cost of each job, what should be charged for it, what profit *should be* made on it, what profit *is* made. Flat-opening, 10½ by 14½ inches, substantially bound, with leather back and corners; 400 pages, 2,000 jobs, $5; 200 pages, 1,000 jobs, $3.50. Specimen page and descriptive circular on application. Must be sent by express at expense of purchaser.

PRINTERS' INSURANCE PROTECTIVE INVENTORY SYSTEM, by Charles S. Brown. A blank-book 11½ by 15 inches, with printed headings, superfine paper, special ruling. It is a classified and *perpetual* inventory system, and informs you of your plant value every hour of the day, every day of the week, every week of the month and every month of the year. No. 1, loose-leaf, for large job or newspaper offices, $25; No. 2, for newspaper offices only, $15; No. 3, for job offices only, $15; No. 4, for small job and newspaper offices, $10.

NICHOL'S PERFECT ORDER AND RECORD BOOK is one of the most useful record books for printers running offices of moderate size that has ever been published. It serves both as an order book and a journal, no journalizing being necessary, making a short method of bookkeeping. By using this book you can learn at a glance whether orders are complete, what their cost is and if they have been posted. Once entered in this book, it is impossible to omit charging an order. Size, 9 by 12 inches; capacity, 3,000 orders; $3. Must be sent by express at expense of purchaser.

A MONEY-MAKING SYSTEM FOR THE EMPLOYING PRINTER.— By Eden B. Stuart. Contains chapters on: The Value of System, The Job Envelope, Individual Composing-room Ticket, Stock-cutting Order, Pressroom Job Ticket, Individual Press Report, Bindery Time Job Ticket, Bindery Job Report, Office Job Ticket, Individual Bindery Ticket, Pressroom Job Record, Presswork Record, Job Cost Record, Order Blanks, Enclosure Slip Estimate Memorandum, Pay Ticket, Daily Financial Report, Requisition Sheet, Bookkeeping, Perpetual Stock Balance Sheet, Profit and Loss Statement, Summary of Uncompleted Work, Stock Used Check, etc. Cloth, $1.

HOW TO MAKE MONEY IN THE PRINTING BUSINESS.— By Paul Nathan. Contents: The Printer as a Business Man, Starting an Office, What Class of Customers to Seek, How to Develop Business, Writing Advertising Matter, Taking Orders, Advertising, How to Talk to Customers, Cost of Producing Printing, Estimating, Acquiring Money, Pricecutting, Competition, Profit and How It Should Be Figured, Buying, Doing Good Printing, Composing-room, Pressroom, Business Office, Bookkeeping, Management of Employees, The Employee's Opportunity, Danger in Side Ventures, Systematic Saving, Partnerships, Leakages, Keeping Up with the Times, Suggestions from Others. 375 pages, cloth, $3.

ACTUAL COST IN PRINTING.— By Isaac H. Blanchard. Contains full description of the purpose and use of all the blanks and records, together with complete cost-figuring tables in blank for the purchaser's own use; in the rear of the book are the necessary ruled pages for taking off the annual or semi-annual inventory of the plant, so that absolutely correct figures may be established and the records kept permanently in the office files; a set of tables of calculations on the 5-minute-unit basis; a set of tables of calculations on the 6-minute-unit basis; a complete set of the loose blanks described in the book; one full bound copy of the summary record book for all the departments, sufficient for one year's use in the office, $5. Style 2.—Annual Tables for Printers and Binders. Every practical

printer insists on revising his cost figures each year, and for that purpose the cost-figuring tables, together with the blank sheets for use in annual inventory, have been bound together in convenient book form. $2.

COST OF PRINTING.— By F. W. Baltes. Contents: Forms — Job Tag, Job Book, Bindery Tag, Compositor's Daily Time Tag, Total Time on Job in Pressroom, Total Daily Time in Pressroom, Daily Register of Counters, Foreman's Daily Press Record, Form Tag, Time Book, Day Book, Journal and Cash Book, Job Ledger; Tables — Weekly Summary of Labor, Monthly Register of Counting Machines, Monthly Summary of Press Records, Statement of Wages and Expenses, Cost of Time in Composing-room, Cost of Piecework, Cost of Work on Cylinder Presses, Cost of Work on Job Presses; Measuring Dupes, Paid Jobs, Legal Blanks, Monthly Statement of Loss or Gain, Inventory Books, Notes. Samples and Prices. 74 pages, cloth, $1.50.

UNIFORMITY IN PRICES.

Apropos of the discussion of the uniformity of prices we are all seeking the two following letters will prove of interest. Both are from cities of approximately the same size and importance, 250,000 people, the scale of wages being the same, $24 for forty-eight hours.

As to the selling price for composition, I am not in position to say which is right, 72 cents as charged in one city or 40 cents as in the other. Both may be but proper in proportion to the cost. I can not give at present the schedule of items composing the general expenses in the first-named plant, but assume that they are no greater than in the latter case. At any rate it is not unfair to think that the cost can not be double, or 58⅓ cents per thousand ems for six or eight point; this would certainly be excessive and there must be something wrong if such a condition does exist. However, even at that, selling the product at 72 cents would net at least twenty-five per cent profit. It seems to me, statements to the contrary nevertheless, that the price of 72 cents is certainly high enough for Linotype composition to allow any printer to net a good profit. If it does not, there must be large leaks somewhere. That means an income of about $21.50 per day, where $1 per hour is usually conceded to be a good price for time work. Better do all at the piece rate.

I do not wish to encourage low prices by any means, but am trying to point out in all sincerity the fact that if our Western friend is selling composition at 72 cents and not clearing a good profit there is something somewhere in his business that needs careful attention. His composition department is evidently supporting some other branch.

This by way of suggestion.

A printer in the Northwest writes: "Hundreds of printers all over the country, who have the good of the trade at heart, are working hard in an effort to educate the craft *upward* in the matter of prices, and it is with great regret that I see in a journal of such widespread circulation and influence what seems to me to be a directly opposite tendency.

"The estimates which I see in THE INLAND PRINTER are based upon a standard which I regard as far, far too low, and which is so regarded by all the printers I know, even those who are the most inclined to figure low.

"To be explicit and definite, I will take the charge made for Linotype composition on page 736, February number, fifty thousand ems of eight-point being figured to cost $4.20 for labor, to which one hundred per cent is added for general expenses, making $8.40, and twenty-five per cent to this for profit, making $10.50 as the amount charged the customer, or 21 cents per thousand.

"In this city the standard price charged to customers (not to the trade, but to customers) for eight-point Linotype is 72 cents, or about two hundred and fifty per cent more than your price of 21 cents, and I have yet to see any printer in my city riding in an automobile — of his own. This price is sometimes slightly shaded on large orders, but hardly on fifty thousand.

"Both of these prices can not be right. Which is wrong?

"Your estimate is perhaps made for a small city, which might account for a difference of ten or even twenty per cent, but not for two hundred and fifty.

"My estimate for the work in question would be as follows:

Stock — cost $2.16	$ 3.00
50,000 eight-point Linotype, at 70 cents	35.00
29,000 six-point Linotype, at 60 cents	17.00
3 hours make-up and lock-up	3.00
3 hours make-ready and running, at $1.33	4.00
Binding	2.00
	$64.00

"This is about the basis of figuring used by most of the printers that I know. One who would go twenty per cent lower, or about $50, would be considered a low figurer. This is quite different from your estimate of $28.43.

"I should like to see THE INLAND PRINTER enlisted in the effort for better prices for printing. I know that you can not suit everybody, but I believe that these estimates are even below the average and certainly the average is much lower than it ought to be.

"Please do not think that this letter emanates from a member of the Knockers' Club. I distinctly disclaim any connection with that fraternity. My only object is to get at the truth, a desire which you will share with me most fully."

Another letter from our Eastern friend, an estimate from whom appeared in the April issue:

"To thoroughly acquaint you with my exact position, so that you will fully understand my figures: The two-machine plant I inventory at $8,600. I have it installed in a regular printing-office and furnish composition under contract by the year, the office doing all proofreading. I am an operator-machinist myself and work such hours as necessary; then I employ another operator, and I figure both our salaries at $55 per week, or $9.17 per day for productive expenses.

"On your suggestion I have revised my non-productive expense as follows:

Interest on investment, six per cent	$ 516.00
Depreciation on plant, ten per cent	860.00
Rent	300.00
Power and light	150.00
Machine helper	125.00
Telephone	60.00
Insurance	90.00
Gas	98.00
Hauling, etc.	50.00
Miscellaneous	150.00
Repairs	50.00
Taxes	51.00
	$2,500.00

"Collecting, bookkeeping, etc., I attend to myself, though I believe the plant could use a boy to advantage, increasing non-productive to $2,700. But let it go at $2,500, which is very close as expenses are at present. This is about $8.33 per day unproductive cost.

"The total productive and non-productive, per day, therefore I place at $17.50 per day of eight hours, three hundred days to the year.

"Now, on the matter of output, I believe I gave you the wrong impression. With my assistant and self working up to reasonable capacity of a two-machine plant the product should be, per day, 60,000 ems six or eight point, 54,000 ten-point or 48,000 eleven-point. Of course, this is not always done, but it could be done if the work were always at hand.

"On the basis of $17.50 per day total productive and non-productive cost, six and eight point would cost me

29 1-6 cents per thousand; ten-point, 32½ cents, and eleven-point, 36½ cents.

"Now, I believe my salary is no more than I would have to pay any other operator, and that therefore I would still have to add to this cost of production a certain percentage of profit. I wish you would look over these figures again and give me another opinion as to their relative correctness.

"Considering the fact that I possibly do three-quarters of my own work, I doubtless could produce the matter for less. But the real point is just what it would cost the average printer-proprietor to produce his composition were he confronted by the hire of two operators and the same general non-productive expense that I have.

"Under my office contract I receive 33 cents for six and eight point, 37 cents for ten-point and 40 cents for eleven-point, the office doing the reading. For outside composition I receive usually 45 cents to 50 cents and do all reading and revising.

"Considering the work I do myself, I believe I am getting no more than a fair profit. If the figures do not agree with your method of computation, I would be glad to have you say so.

"It is really a difficult subject to get at exactly, for, you must know, in the printing business there may be little doing for weeks and then the rush, when most everything you do is at overtime prices."

My answer was as follows:

Your new estimate seems to be nearer correct, and if your item of "Miscellaneous" covers all the small but essential amounts outside of those given, you may feel safe in basing your unproductive cost accordingly. The only large item I find missing is your own salary for your unproductive time. If you allow about $27.50 per week and part of the time you devote to office work, you could better hire a cheaper person to do that work if you have to pay an operator $27.50 while you are doing this office work.

The method you are pursuing seems to be proper, and according to the detailed arrangement stated in your letter (which is certainly well arranged and fairly complete) you should be able to figure out your net cost correctly.

In your first letter you evidently calculated on the output of one machine only. It puts another color on your situation to double up this item as in yours just received.

At this distance and from the limited information I have of your position I can not think you are making even a fair profit at the prices which you are getting for your product, especially the small sizes. Your six and eight point are costing you close to 30 cents and you should receive at least 40 cents for the work.

There is always more or less expansion rather than shrinkage in general expenses no matter how carefully and minutely prepared. Allowance should be made for this expansion of from ten to twenty-five per cent.

Now I realize about how you are situated and no doubt you are influenced or controlled to a degree by competition and must act accordingly, but you must remember that a business such as yours can run along for a year on cost only and yet apparently make money. But is it making money? Can you replace your plant complete in the required time at your present prices? This is the point; the plant must absolutely pay for itself in at least ten years over and above your salary and distinct from a *profit*.

Do not let this discourage you. You are making a profit, but a small one. If you can do so in justice to yourself, you should increase your prices at least twenty-five per cent.

PRICE-LIST.

"Enclosed find sample of price-list, upon which I wish you would make estimate. These price-lists are run as follows: 5,000 the first lot, and three other lots of 500, 1,200 and 800, in which the prices are changed throughout in each lot. Run on 5½-cent stock, 24 pounds, 19 by 24, four pages at a time; folded, stitched and trimmed; wages of compositor, 20 cents an hour; feeders, 15 cents an hour. Price of stock does not include freight."

Answer. — Twelve pages, no cover; trim 4 by 7½, upright; saddle-stitch, on hand stapler; black ink throughout; composition, rule-and-figure work throughout and figured on basis of time-and-a-half matter:

	(5,000)	(500)	(800)	(1,200)
5 1-10 reams stock, at 5¾ cents	$ 7.04	.....	.....	.....
275 sheets stock, at 5¾ cents	.....	$0.76	.....	.....
425 sheets stock, at 5¾ cents	.....	.....	$1.17	.....
650 sheets stock, at 5¾ cents	.....	.....	.....	$1.79
Two per cent loss on paper stock	.14	.02	.02	.04
Ink, 1¼ pounds, at 15 cents	.19	.....	.....	.....
Ink, ⅛ pound, at 15 cents	.....	.02	.....	.....
Ink, ¼ pound, at 15 cents	.....	.....	.04	.....
Ink, ⅜ pound, at 15 cents	.....	.....	.....	.06
Twenty-five per cent profit on stock and ink	1.84	.20	.31	.47
Composition: Type form 20 by 40 ems pica.				
19,800 ems eight-point, 42½ hrs., at 20 cts.	8.50	.....	.....	.....
22 hours changes	.....	4.40	4.40	4.40
Lock-up, 1½ hours, at 20 cents	.30	.30	.30	.30
Presswork: Inside, 8 by 15, three 4-page forms, 4 hours, at 15 cents	.60	.60	.60	.60
Running time: 5,000 impressions, 6 hours at 15 cents	.90	.....	.....	.....
500 impressions, ¾ hour, at 15 cents	.....	.11	.....	.....
800 impressions, 1 hour, at 15 cents	.....	.....	.15	.....
1,200 impressions, 1¼ hours, at 15 cents	.....	.....	.....	.19
Binding: 10,000 staples, at 25 cents	2.50	.....	.....	.....
1,000 staples, at 25 cents	.....	.25	.....	.....
1,600 staples, at 25 cents	.....	.....	.40	.....
2,400 staples, at 25 cents	.....	.....	.....	.60
Two per cent loss on binding material	.05	.....	.....	.....
Twenty five per cent profit on binding material	.64	.06	.10	.15
Hand folding: 15,000 folds, 10 hours, at 10 cents	1.00	.....	.....	.....
1,500 folds, 1 hour, at 10 cents	.....	.10	.....	.....
2,400 folds, 1¾ hours, at 10 cents	.....	.....	.18	.....
3,600 folds, 2½ hours, at 10 cents	.....	.....	.....	.25
Inserting: 10,000 pieces, 8 hours, at 10 cents.	.80	.....	.....	.....
1,000 pieces, ¾ hour, at 10 cents	.....	.08	.....	.....
1,600 pieces, 1¼ hours, at 10 cents	.....	.....	.12	.....
2,400 pieces, 2 hours, at 10 cents	.....	.....	.....	.20
Stapling: 5,000, 13 hours, at 10 cents	1.30	.....	.....	.....
500, 1¼ hours, at 10 cents	.....	.12	.....	.....
800, 2 hours, at 10 cents	.....	.....	.20	.....
1,200, 3 hours, at 10 cents	.....	.....	.....	.30
Trimming: 5,000, 5 hours, at 15 cents	.75	.....	.....	.....
500, ½ hour, at 15 cents	.....	.08	.....	.....
800, ¾ hour, at 15 cents	.....	.....	.11	.....
1,200, 1¼ hours, at 15 cents	.....	.....	.....	.19
Wrapping and tying	.05	.05	.05	.05
One hundred per cent general expenses added to all productive labor	14.20	5.84	6.11	6.53
Twenty-five per cent profit on labor and general expenses	7.10	2.92	3.05	3.27
	$47.90	$15.91	$17.31	$19.44

SCHOOL JOURNAL.

W. A. Chalfant, Bishop, California, asks: "What price should I get for the following? School journal, fifty-four inside pages, two advertising pages on cover and front — fifty-seven pages in all; matter measured 26 by 42 twelve-point ems, but set in ten-point; printed two pages at a time on 10 by 15 jobber; folded and inside pages trimmed, cover pasted on; the three cover-pages bronzed; stock eighty-pound, 28 by 42, costing 8⅝ cents; cover-stock sixty-pound, costing 15½ cents, and including in this estimate cost of one-fourth more inside stock for reserve in case of increase of size of book; double-page

sheets cut to 14 by 9¾ for inside and 10 by 15 for cover. Front cover-page engraved at school expense. Composition costs 50 cents per thousand ems; other time 35 cents an hour. What should I get for four hundred copies? What for two hundred? How much per page for additional pages? Please make estimate on presswork and other conditions as above."

Answer. — Stock, 28 by 42 — 80; fifty-four pages and cover; size, 7 by 9¾:

	(200)	(400)
850 sheets, at 8⅝ cents per pound	.....	$ 11.74
425 sheets, at 8⅝ cents per pound	$ 5.87	.....
75 sheets cover, at 15⅛ cents per pound	1.36	.....
150 sheets cover, at 15⅛ cents per pound	.....	2.72
Two per cent loss on paper stock	.14	.29
Ink, ½ pound, at 25 cents	.13	.....
Ink, 1 pound, at 25 cents	.....	.25
Bronze	.15	.30
400 staples	.10	.....
800 staples	.....	.20
Twenty-five per cent profit on stock, ink, staples	1.94	3.88
Composition: 26 by 42 ems pica, page size.		
83,700 ems ten-point, at 50 cents per 1,000	41.85	41.85
2,184 ems twelve-point, at 50 cents per 1,000	1.09	1.09
Make-up, 54 pages, 9 hours, at 35 cents	3.15	3.15
Lock-up, twenty-eight 2-page forms, 5 hours, at 35 cents	1.15	1.75
One 1-page form, ¼ hour, at 35 cents	.09	.09
Presswork: Make-ready.		
Inside, 10 by 14, twenty-seven 2-page forms, 7 hours, at 35 cents	2.45	2.45
Cover, 10 by 15, one 2-page form, ¼ hour, at 35 cts.	.09	.09
Cover, One 1-page form, ¼ hour, at 35 cents	.09	.09
Running time and bronzing:		
5,400 impressions, 6 hours, at 35 cents	2.10	.....
10,800 impressions, 12 hours, at 35 cents	.....	4.20
Cover, 200 impressions, 1 hour	.35	.....
Cover, 400 impressions	.....	.53
Binding:		
5,400 folds, hand-folding, 5 hours, at 35 cents	1.75	.....
10,800 folds, hand-folding, 10 hours, at 35 cents	.....	3.50
Folding, 400 folds, ½ hour, at 35 cents	.17	.....
Folding, 800 folds, 1 hour, at 35 cents	.....	.35
Gathering, 5 hours, at 35 cents	1.75	.....
Gathering, 10 hours, at 35 cents	.....	3.50
Stapling, 200, 1 hour, at 35 cents	.35	.....
Stapling, 400, 1½ hours, at 35 cents	.....	.53
Trimming, 200, ¼ hour, at 35 cents	.09	.....
Trimming, 400, ½ hour, at 35 cents	.....	.17
Covering, 200, 1½ hours, at 35 cents	.52	.....
Covering, 400, 3 hours, at 35 cents	.....	1.05
One hundred per cent general expenses added to all productive labor	57.64	64.39
Twenty-five per cent profit	28.82	32.19
	$153.79	$180.35
Additional pages, if required	2.85	3.35

In the above estimate you will find that your cost of labor on certain classes of work, such as press-feeding and part of the binding, is very high, and the job might be produced for much less money if figured on conditions as they possibly actually exist in your plant. I assume that you do not pay as much for this class of work as you state in your letter; of course you stated that the time rate was 35 cents for all work outside of composition and I have acted accordingly. You will be able to change this rate to whatever it may be very easily in the above estimate and arrive at the results you are after. Your presswork is also expensive if done on the basis on which I have figured, it not being possible to run a job of this kind at a reasonable price in the manner that you indicate.

POSTER ESTIMATE.

A correspondent writes: "I enclose herewith poster printed on a six-quarto cylinder. Stock cost $1.15 per thousand. I desire to know what you would consider a fair price for these in five and ten thousand lots. That is, what is the average price charged for such work as this? Thank you for the favor and for the valuable information which THE INLAND PRINTER contains every month."

Answer. — Posters; size, 18 by 24; news ink:

	5 M.	10 M.
Stock	$. 5.75	$11.50
Two per cent loss on paper stock	.12	.23
Ink, 1¾ pounds, at 8 cents	.10	....
2½ pounds, at 8 cents	....	.20
Twenty-five per cent profit on stock and ink	1.49	2.98
Composition:		
Type form 82 by 121 ems pica.		
9,922 ems 12-point, 10 hours, at 22 cents.	2.20	2.20
Make-up.		
Lock-up, ½ hour, at 22 cents	.11	.11
Presswork, 3 hours, at 22 cents	.66	.66
Running time, 5,000 impressions, 7 hours, at 22 cents	1.54	....
10,000 impressions, 14 hours, at 22 cents.	....	3.08
One hundred per cent general expenses added to all productive labor	4.51	6.05
Twenty-five per cent profit	2.25	3.02
	$18.73	$30.03

THIRTY-TWO-PAGE PUBLICATION.

A. W. Ladd, Albion, Nebraska, asks for estimate as follows: "Two thousand copies, 9 by 12; stock used, eight reams fifty-pound paper at 5 cents; two reams cover, at $5 per ream; printed on drum-cylinder; eight-page form; customer furnished all cuts; ink, 50 cents, cut; cover, $1.50; blue and olive; folded by hand; wire-stitched with foot-power machine."

Answer. — Publication, thirty-two pages and cover:

Stock	$ 20.00
Cover-stock	10.00
Ink, inside, 2 pounds	1.00
Ink, cover, ½ pound	.75
Wire, one pound	.10
Composition: 57,000 ems ten-point, 80 hours, at 22½ cents	17.77
9,650 ems twelve-point, 13½ hours	3.00
29,160 ems eight-point, 42 hours	9.33
Making up 35 pages, 9 hours, at 22½ cents	2.00
Lock-up, four 8-page forms and one 4-page form	2.00
One 1-page form	.12
Make-ready, four 8-page forms, 12 hours, at 45 cents	5.40
One 4-page form, 2 hours	.90
One 1-page form, 1 hour	.45
Feeding, 10,000 impressions, 12 hours, at 15 cents	1.80
One 1-page form	.45
Folding, 18,000 folds, 20 hours, at 10 cents	2.00
Gathering and inserting, 8 hours	.80
Stitching, 5 hours, at 10 cents	.50
Trimming, 8 hours	.30
Wrapping and tying, 1 hour	.15
One hundred per cent general expense (Rule D)	46.97
Twenty-five per cent profit on all	31.45
	$157.24

You do not state what part of the composition changes each issue, so I estimate complete change. In the presswork I have allowed pressman's and feeder's time on make-ready, the former at 30 cents and the latter at 15 cents per hour.

The job as a whole is very creditable and perhaps the suggestions I could make would be that the top and bottom margins are a trifle wide for the best appearance, and it would look more metropolitan to use plainer borders for the advertising.

A FEW QUESTIONS.

Below will be found a list of questions, answers to which will be most interesting and instructive to every printer-reader of THE INLAND PRINTER, and it is most strongly urged that all of you will answer in detail those with which you are most familiar. It is desired that many will take the interest in this work the necessity of the times demands and respond freely with full detail of all

questions, if possible. Where the reader is more conversant with one question than another, or one branch of work, write at length of your experiences and your opinions along that line and send them in.

I want and I expect a quantity of information that will be of inestimable value to the trade, and a generous response to these questions will supply and fill that want.

Come to the front, brothers; you will both give and receive much benefit.

RECEIPT OF ORDERS.

How to calculate cost of job?
Specimen of ascertaining cost.
Wrapper or work ticket to be sent forward with the work.
How to deliver orders to customers?
Delivery ticket for bookkeeping.
Organization of work in office.
How to classify work tickets of job done to permit of easy future reference.

MAKING OF JOB.

To whom is the job sent from office.
Is there a foreman, whose special business is to study the technical side, in order to make jobwork the most profitable?
Is it his business to group jobs received from other foremen?
How is a job forwarded from composing-room to pressroom?
What is the method of classification and apportionment of work?
In what sort of book do the foremen write up jobs sent to them?
How is the progress of work controlled and checked in the composing-room? (Send work tickets.)
Composing-room recapitulation. (Send specimen sheets.)
What simple and practical book do you use for checking plant? (Send specimen sheets.)
How can one find out what use has been made of stock charged?
Do you keep a statement book for plant?
How is "press" marked on proofs forwarded from office to foremen?
How are jobs classified?
Are forms always imposed beforehand?
Is there any space specially allowed for putting these forms in while waiting their turn for working off?
Have they an order number on them and are they sorted in any special rack?

PRESSES.

What simple and practical method do you employ for dividing and classifying jobs in the pressroom?
What is the duty of the proofreader signing for press?
Are customer's alterations and whiting-out margins corrected and revised before being returned to press so as to avoid corrections on the press?
How do you control the time used to each job: make-ready, running, signing for press? (Send tickets.)
How do you know the daily production of each press? (Send tickets.)
How do you make recapitulation of the worked hours and the production of the presses per week or per fortnight? (Send tickets.)
To what do you debit time lost for miscalculations or loss of time: as productive or non-productive work?
Have you a special book from which you can see the actual cost price of your presses and their production giving the cost price per hour? How do you go at it?
What is the approximate cost that you charge per hour for printing on one side and printing on two sides of sheet?
How much do you estimate production per hour?
How many presses does each pressman conduct?
How do you order the various accessories for maintenance and upkeep of presses?
Have you a special book for the checking in and checking out of these purchases so as to be able to control the expense? (Send specimen.)
How is work sent from pressroom to bindery?
In order to assure a smooth progress of work, what is the best method to avoid mistakes, misinterpretations and to keep unity of system between all the foremen?
How do you check entries and outgoings of stock? (Send specimen.)
How are orders made to manufacturers? (Send order sheet.)
To what account do you charge papers spoiled in printing?
How much do you estimate the spoiled paper, after having taken stock?
What sort of books do you use for stockkeeping?

ACCOUNTING.

Do you have an efficient bookkeeping system?
Have you in connection a complete cost-accounting system?
If so, how do you obtain your percentage of general expense? Illustrate.
How do you apply them to each job? Send example.
What method do you use in estimating on new work? Send example.
What do you think of the necessity of and best plan to adopt in order to arrive at more uniform prices for work?

A PROTEST.

G. Wray, Minneapolis, Minnesota, writes: "The writer and some others who have analyzed your mail card estimate, on page 905 of the March issue of THE INLAND PRINTER, think you are doing the trade a great injury in cultivating the tendency to low selling prices. You estimate $12.50 for five thousand mailing cards, 7 by 7½. The writer would estimate this as follows, and would not undertake the job for much less than the price arrived at. No self-respecting printer who knows anything of costs would listen to a proposal to do the work for $12.50:

Stock	$ 6.30
Express	1.30
Twenty-five per cent profit and handling	1.90
Composition: 2 hours (although it would not be much of a mailing card that could be set in 2 hours)	1.50
Lock-up, ½ hour	.40
Presswork: Make-ready, 1 hour; run, 5 hours; total, 6 hours, at 80 cents	4.80
Ink	.30
Cutting and delivery	.50
	$17.00

"A carpenter or a blacksmith would expect fully as much or more than this on a similar investment and for a similar amount of work. Surely a printer is entitled to as good wages and as large a margin of profit as the man who saws wood or welds iron. It is time protest was put in to your encouragement of absurdly low prices for printing." Any one else?



AFRICAN CANNIBAL CHIEF AND HIS WIFE.

MARK TWAIN ON PHONETIC SPELLING.

Mark Twain does not think that reformed spelling will be adopted. "And I'm sorry as a dog," he says; "for I do love revolutions and violence." It would take only two years to make the change, he estimates. "To begin with, the nation would be in a rage; it would break into a storm of scoffs and jeers, sarcasms, cursings, vituperations and keep it up for months — but it would have to read the papers; it couldn't help itself. By and by, and gradually, the offensive phonetics would lose something of their strange and uncanny look; after another by and by they would lose all of it and begin to look rather natural and pleasant; after a couple of years of this the nation would think them handsome, sane and expressive, and would prefer them to any other breed of spelling. For unto the eye that can make a haystack-hoopskirt beautiful any other conceivable horror is an easy job."

Job Composition

Under this head will appear each month suggestive analysis and criticism of reproduced and reset specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

VEST-POCKET MANUAL OF PRINTING. 50 cents.

SPECIMENS OF BUSINESS CARDS AND TICKETS — sixteen-page booklet — 25 cents.

SPECIMENS OF ENVELOPE CORNER CARDS — twenty-four-page booklet — 25 cents.

MODERN LETTERPRESS DESIGNS.— A collection of designs for job composition from the *British Printer*. 60 cents.

SPECIMENS OF LETTER-HEADS.— Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

MENUS AND PROGRAMS.— A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

AMERICAN MANUAL OF TYPOGRAPHY.— New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. $4.

IMPRESSIONS OF MODERN TYPE DESIGNS.— Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

BERAN: SOME OF HIS WORK.— Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. $3.

SPECIMENS OF BILL-HEADS.— Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

LECTURES FOR APPRENTICES.— Reprinted from THE INLAND PRINTER. Comprises General Work, Commercial Work and Stonework. 56 pages, fully illustrated, 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1, postpaid.

ART BITS.— A collection of proofs selected from odd issues — half-tones, three-color prints, engravers' etchings, etc.— neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, $1, postpaid.

TITLE PAGES.— By Theodore Low De Vinne. Third volume of the series on "The Practice of Typography." Treats the subject from three standpoints — Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, $2.

TWENTIETH CENTURY COVER-DESIGNS.— Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. $5, prepaid.

PLAIN PRINTING TYPES.— By Theodore Low De Vinne. First volume of the series on "The Practice of Typography." A treatise on the processes of typemaking, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, $2.

THE PRINCIPLES OF DESIGN.— By Ernest Allen Batchelder, Instructor Throop Polytechnic Institute, Pasadena, California. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, $3.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HINTS ON IMPOSITION.— By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins, and this feature alone is well worth the price of the book. Full leather, 4 by 6 inches, flexible. $1.

PORTFOLIO OF SPECIMENS OF PRINTING.— The second of the series, composed of a wide range of commercial work in pure typography, designed to show the maximum of effectiveness at the minimum of time and expense. Printed on loose leaves and comprises examples of plain and color printing; also a demonstration of the relationship between the size of the half-tone screen and various grades of paper. This portfolio is especially recommended to students and ambitious printers. Price, $1, postpaid.

BOOKLETS.

Nothing in the printing field offers such great opportunities for the exercise of originality and artistic ability on the part of the job-compositor as the laying out and execution of booklets. However, the successful handling of this class of work necessitates a knowledge of the principles of design and the use of color. Great quantities of booklets are constantly being produced, many of which are nothing more than so much "straight matter" divided into pages without much thought of margins, running heads, folios, etc. These are bound in covers printed in colors which do not harmonize with the color of the stock, and with no apparent connection, either in typographical design or coloring, with the body of the booklet. While it is not necessary to go to great expense in the production of work of this kind, the finished product should have a touch of individuality — that "something different" which some printers seem to be unable to achieve in their work. The saying that "good printing can be done as cheaply as poor printing" is applicable to the typographical arrangement of a booklet, even though the cost of stock and illustrations may vary. It costs no more to put into type a booklet having a touch of originality and grace than it does to set the same job after the manner in which "the other printer" would be likely to do the work. A knowledge of proportion, balance, design and color harmony are essential, however, to obtain these results.

The booklet is in all probability the best form of advertising for the printer, as the blotter has become so common that it attracts comparatively little attention. But the booklet, when used by the printer as an advertising medium, should not be carelessly prepared. When received by the customer, or prospective customer, it will be taken as a criterion of what the firm can do, and the advertiser — who, as a general thing, is looking for something novel and attractive — will not expect to get it from a firm which produces for its own publicity work of an inferior or mediocre quality.

The cover of a booklet is usually its passport — either to the interest of the recipient or to the waste-basket. Therefore this part of a booklet should receive careful attention — not the kind of attention that runs to freakish display in the use of types and ornamentations, but the attention that results in something which might be classed as dignified simplicity — something which, when seen by other printers, will cause the remark: "I might have done the same myself." It is not necessarily the elaborately embossed and extravagantly ornamented cover that attracts and holds attention. Rather it is the cover which, in addition to being simple, contains true artistic quality. The colors, also, should receive more care than is usually bestowed on this kind of work, not only in the relation of the colors to each other, but their relation to the stock on which they are printed; and in turn the cover as a whole should be considered as part of a color scheme with the interior of the booklet. Some printers are deficient in the vital points in the making of a booklet — the selection of papers for the cover and body, the proper whiting out of the pages, the margins, the use of illustrations, the correct size of type for the size of the page and the knowledge of the harmony of colors necessary to the production of a piece of work which is to present a pleasing appearance and stand as an example of the best that the printer is capable of turning out.

The typography of a booklet cover is something that

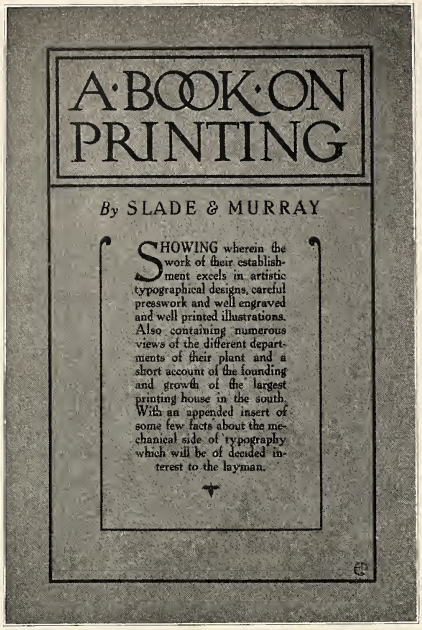


Fig. 1. Hand-lettered specimen by E. Peterson, Inland Printer Technical School.

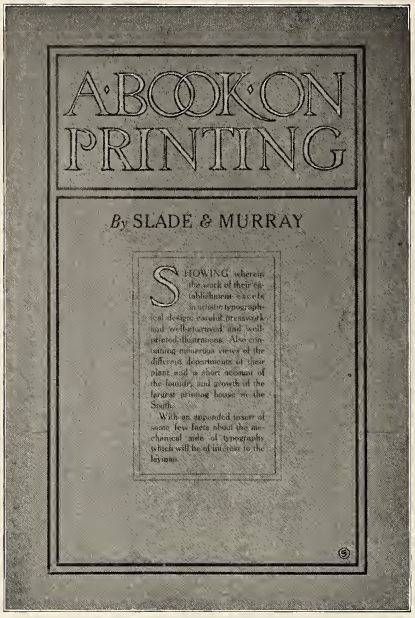


Fig. 3. Showing a different treatment of lettering for same cover. Specimen by W. Stevens, Inland Printer Technical School.

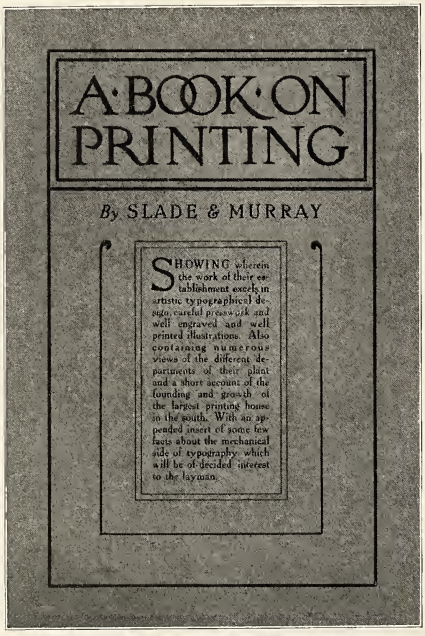


Fig. 2. Showing comparison in tone value with Fig. 1.

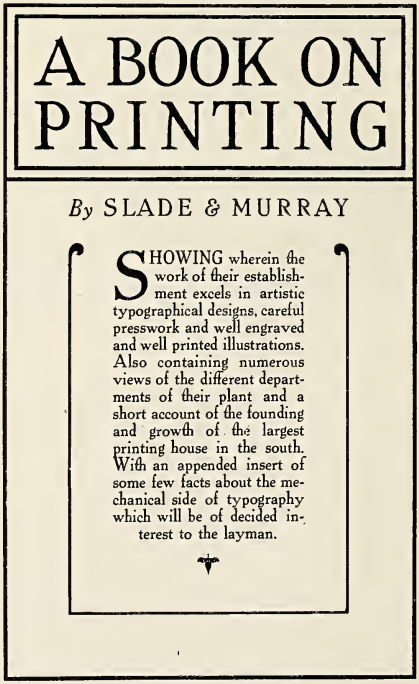


Fig. 4. Showing the same cover composed entirely from type.

should be given the greatest care and attention. When no illustration is used on the cover the feature line should stand out simply and strongly, with the balance of the type matter subordinated, in order that the reader may

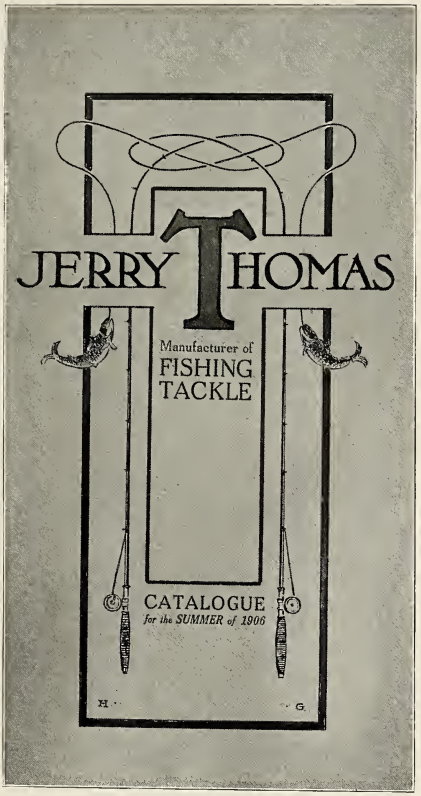


Fig. 5. Hand-lettered specimen by H. L. Gage, Inland Printer Technical School.

instantly grasp the subject under consideration, and in no case should this feature line be overshadowed by the improper use of ornamentation and rulework. Artistic and pleasing originality in typography does not consist of eccentricity and bizarre effects, and the booklet cover which is primarily an example of what the office affords in the way of fancy ornaments is of practically no value to the advertiser, for the reason that the message he wishes to convey to the reader is weighed down under freakish display to such an extent that it becomes a secondary consideration rather than one of the first importance. The colors of ink are also vital in the production of pleasing covers. The use of colors which will harmonize with the cover stock is as important as the use of colors which harmonize with each other. Artistic color-printing demands the use of a large percentage of one color with a small percentage of the other, the large percentage being of the colder color. In the use of red and black, as an example, a slight touch of the red — from five to twenty per cent, and in most cases five — is sufficient to brighten up a page, while a greater amount of the warm color is displeasing.

The printer who possesses the ability to do an occasional bit of hand lettering is in a position to add a touch of individuality to his work which he otherwise could not do. The presence of a line of hand lettering on a booklet is sufficient to remove it from the ordinary class of work and place it among the original and attractive specimens.

The accompanying reproductions of work of students in the Inland Printer Technical School illustrate this fact. The easy grace of the feature lines in Figs. 1, 2 and 3 is in marked contrast to that of Fig. 4, which is entirely from type. Another feature — the harmony of tone in the different panels of a printed page — is illustrated by a comparison of Figs. 1 and 2. In Fig. 1 the heading and panel of reading matter harmonize in tone, while in Fig. 2 the lower panel is too weak in color to hold well with the heading. Fig. 3 shows another treatment of the same cover. Figs. 5 and 6, as will be readily seen, are hand-lettered, while Figs. 7, 8 and 9 are entirely from type.

The body of the booklet should also be given more consideration than is usually devoted to it. Liberal margins

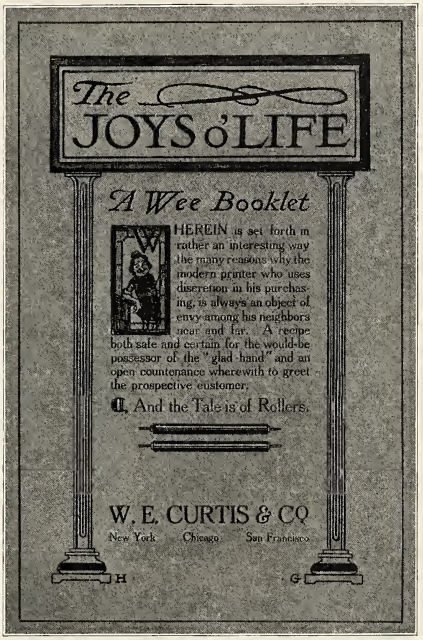


Fig. 6. Hand-lettered specimen by H. L. Gage, Inland Printer Technical School.

should be the rule and the consideration of the double page as a unit and the consequent decrease of margins in the back can not fail to produce a satisfactory result.

The running heads should be attractive, and if the work is in two colors, paragraph marks in color distributed through the page will have a tendency to break up the solid mass and form the resting-places which the eye naturally seeks. The use of a type-face which harmonizes



Fig. 7. Type specimen by H. L. Gage, Inland Printer Technical School.

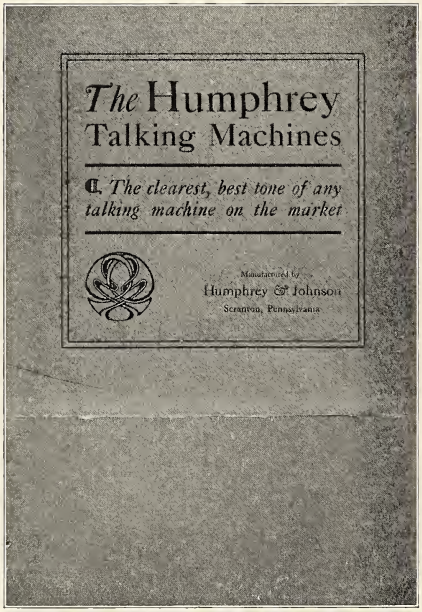


Fig. 8. Type specimen by E. Peterson, Inland Printer Technical School.

in shape with the proportions of the page is another feature which seems to be given little attention. As an example, a booklet page three inches wide and six inches high would require a more condensed body type than would one four inches wide and five inches high, not only from the fact that the more condensed type spaces better in a narrow measure and consequently affords a more even color for the whole page, but for the additional reason that the shape of the condensed type-face is in harmony with the shape of the one page and not with the other.

The association of different type-faces in a booklet should also be the subject of careful consideration. The



Fig. 9. Type specimen by E. Peterson, Inland Printer Technical School.

running heads, sub-headings, etc., should be chosen with a view to their harmonizing in character with the face of the body letter. Such consideration for the harmony of type form would prevent such a combination as modern capitals for the running head, square gothic for the subheadings and old style for the text. The use of the initial letter is probably the most abused feature of booklet printing. It is the exception to find initial letters surrounded by the proper amount of white space. Not only do some printers fail to take into consideration the use of an initial which will harmonize in tone with the text, and vary the white space according to whether the tone of the printed page is to be dark or light, but in addition to this it is a common occurrence to find initials with a nonpareil white space at the side and two or three times that amount at the bottom, or vice versa.

Hugo Pennell
Art Decoration

Mural Paintings
Rare Tapestries
Wall-Coverings
of every Fashion



Catalogue for 1906



The House of the Great Secret



OORS and windows — all were locked and barred, every door in the house with its great lock and a key that always remained on the inside; and all the windows fitted with heavy bars, some wooden, but mainly brass and iron, close-fitted. So the winter wind crawled through with a melancholy sound, quite unlike its usual shivering laughter. Down-stairs, where the house rambled afar and was variously used, there were rooms where the caution of the master spirits did not intrude; the kitchen, for instance, was like many another in old Mentz, and well-nigh as hospitable.

But up-stairs, where the mystic business of the Fust Craft went forward, there was no entrance for any one, save by oath.

In the first room, where Herr Fust's apprentices spent their days in a patient cutting of letters on bits of pewter, hung a copper crucifix; and beside it was a goad with leather thongs.



ornings, before the work began, Herr Fust and Johann Gaensfleisch would take down the cross, and each man would make oath solemnly — with his hand upon the Sign and Johann's deep eyes threatening his very life if he lied, that he had not betrayed aught of the business of the House; nor would, ever and ever, till death. Then the apprentices would go soberly to their benches, and the bright shavings from their

The Blood of the Grape

Chicago
Brang & Co.
152 Haven St.

Detroit
F. T. Hande
15 W. High St.



" The Cup that Cheers and yet Harms Not "

¶ Health is always Wealth.
¶ WHY NOT be Wealthy?

Spring Styles for 1906

Showing Some of the New Arrivals from Paris

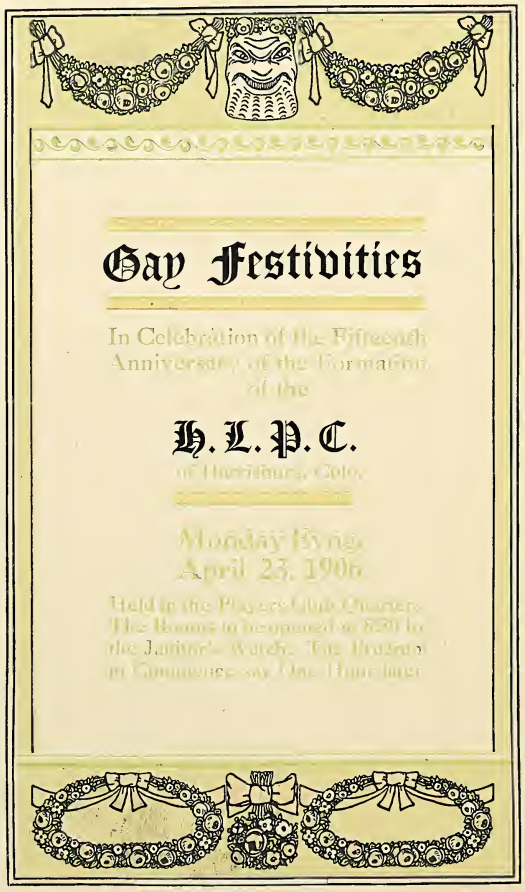


Mmes. le Deloner and Millet
Milliners to the Elite 61 *Jackson Blvd., Chicago*



Ornaments by the
Rudhardsche Type Foundry
Offenbach-on-the-Main
Germany

Printed by
The Henry O. Shepard Co.
120-130 Sherman Street
Chicago, U. S. A.



IN TIME of YOUTH



A Poem of the Olden Time

By Elizabeth Kenwood

SPECIMENS

Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

SPECIMENS received from Lennis Brannon, Talladega, Alabama, show good type-design, careful presswork and an intelligent use of color.

COOK BROTHERS, Los Angeles, California.— The specimens submitted are very creditable, the cover for the business card booklet being especially attractive.

FRED E. MOORE, Stratford, Ontario.— The rule border and panel on the program are correct, as the transposing of the weights of rule would throw the small panel behind instead of in front of the pages. It is not customary to use periods after the names Will, Fred, etc., as they are nicknames rather than abbreviations. A cover-page is reproduced (Fig. 1), with a resetting (Fig. 2), suggesting the desirability of grouping the words "The City of Stratford as a Site for a New Provincial Normal School," rather than displaying them separately.

CAREFUL typographical arrangement and good presswork are features of the spring number of The School Arts Book, published by The Davis Press, Worcester, Massachusetts.

"SEE AMERICA FIRST" and "With Nature in Colorado" are the titles of two attractive booklets designed and printed by the Carson-Harper Company, Denver, Colorado, for the Denver & Rio Grande Railroad. The former is printed in black and red on deckle-edge stock and the latter is in black and red, with numerous well-engraved and well-printed half-tones. Both are very creditable specimens.

CAREFUL, modest type-designs and good presswork characterize the specimens submitted by Jas. R. Harris, Menominee, Wisconsin. The joining of rules, however, could be very much improved.

MARION POTTER, Charlotte, Michigan.— The letter-head would be very much better in appearance if less space were used between words in the feature line. Otherwise it is very well displayed.

NEAT, modest typography characterizes the commercial specimens from The Stuart Print Shop, Binghamton, New York. The stationery for the Stickley-Brandt Furniture Company is especially commendable.

F. H. MCCULLOCH PRINTING COMPANY, Austin, Minnesota.— The specimens submitted are creditable and original in design. A more careful makeready on the half-tones would, however, be a great improvement.

HAL OSGOOD, Bradford, Pennsylvania.— The specimens submitted are good in color harmony and typographical arrangement, but could be greatly improved by more attention being given to the joining of rules.

ADOLPH MAMPE, Philadelphia, Pennsylvania.— The advertisement submitted is well designed and very creditable. The last four lines, however, contain punctuation points which could well have been omitted.

E. H. STUART, Decatur, Illinois.— The specimens submitted are very creditable and show careful workmanship. On some of the specimens, however — especially the souvenir program and anniversary program — the feature lines crowd the top of the page too closely. A slight lowering of these lines would greatly improve both specimens.

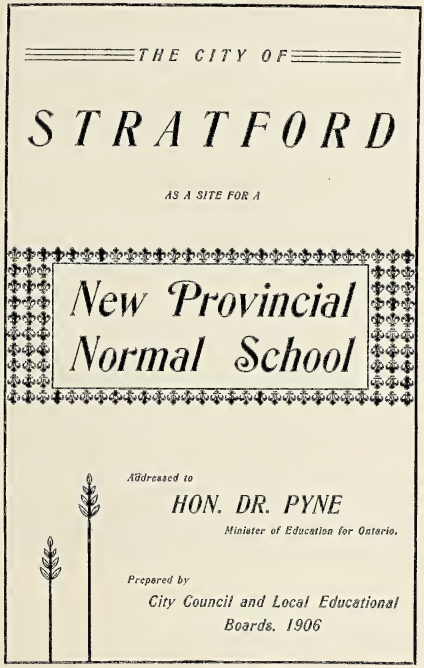


FIG. 1.

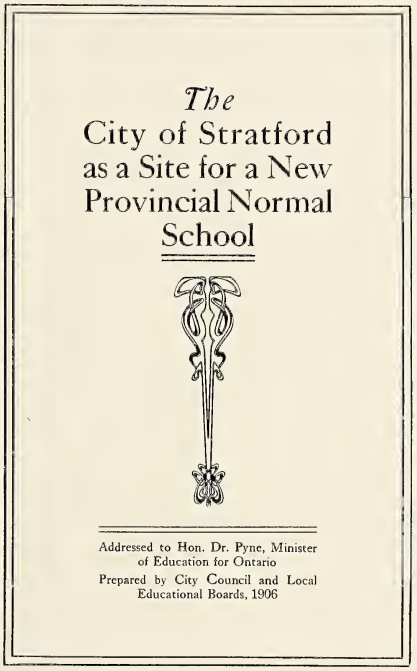


FIG. 2.

SPECIMENS from the Brothers Klingspar, Offenbach, Germany, contain many unique initial letters and decorative designs. A noticeable feature of the work is the careful use of delicate tints and shades of color.

JAMES AUSTIN MURRAY, Chicago.— The typography on the specimen submitted is too ornamental and the whiting out seems to have been entirely overlooked. The presswork on the half-tones also has the appearance of little care.

G. L. PATTERSON, Trenton, Nebraska.— In your efforts to attain originality in the type arrangement of the dodger, you have rather overdone the ornamentation and the breaking-up of the reading matter into separate panels. The use of too many different type-faces is also partly responsible

for the confusing appearance of the work. In work of this class, which should be read with the least possible effort, simplicity should be desired, rather than an elaborate design or an excess of ornamentation.

THE Canner Publishing Company, Chicago.— Lack of careful make-ready and poor distribution of color are noticeable in the convention number of *The Canner and Dried Fruit Packer*. Otherwise the work is very creditable.

CAYCES & TURNER, Martin, Tennessee.— Imperfect joining of rules and the use of too heavy ornaments in the side panels detract from the appearance of the headings in the *Hall-Moody Herald*. The handling of the advertisements is very creditable.

E. E. BROCKMAN, Steger, Illinois.— The large sizes of type used, in addition to the heavy ornaments, give the letter-head a rather confusing appearance. The elimination of the ornaments and a more modest type display would result in a great improvement.

SPECIMENS from The Inland Press, Asheville, North Carolina, are neat in typographical arrangement, well printed, and show a careful distribution of



FIG. 3.

color. A letter-head specimen is reproduced. The original is in black and red on white bond paper (Fig. 3).

FRED C. POWELL, Adelaide, Australia.— More attention given to the joining of rules and more care in make-ready would greatly improve the appearance of the booklet. A yellow-green tint for the rules would also have been much better than the blue which has been used.

FROM the Union Bank Note Company, Kansas City, Missouri, comes a unique announcement. It is hand-lettered and printed in red and green on brown stock, giving a burnt-leather effect. A half-tone printed on enameled paper is tipped on the lower right-hand corner.

AN excess of ornamentation is noticeable in specimens from Glover's Printing Works, Weston-super-Mare, England. Considerable originality in rule-designs is shown, but the pleasing effect is lost through the carelessness in workmanship shown in the poor joining of the rules.

FRANK HANSON, Denver, Colorado.— The specimens submitted show originality in type-design, the circular being especially good. The use of text on the letter-heads should have been confined to one or two lines, using a

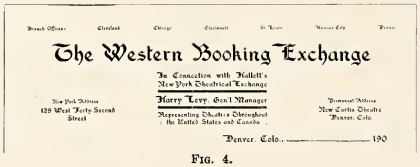


FIG. 4.

plainer face for the balance of the matter. The decorative effect of the text-letter should be considered when it is used in commercial work, and its exclusive use presents the appearance of an excess of ornamentation, in addition to the fact that it is less legible than a plain letter. A reproduction of one of the letter-heads is shown (Fig. 4), with a resetting (Fig. 5), illustrating this point.

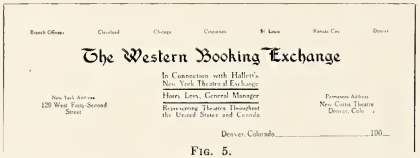


FIG. 5.

Register-Weekly, Union City, Michigan.—An excess of rule and ornaments detracts much from the appearance of the blotter. The colors are also weak. The advertising value of a blotter should be the first consideration, rather than the use of an involved design of panels and decoration.

HUSSEY & GILLINGHAM, Adelaide, Australia.— Imperfect rulework is the chief feature for criticism in the specimens submitted. Elaborate panel arrangements should be avoided where the mechanical work is not correctly handled, as the result is then far less attractive than plain type-design, even though the panel arrangement is excellent. More care should be given to the make-ready of the half-tones.

A UNIQUE specimen is the program of the banquet at which the allied crafts of the printing trades of Scranton, Pennsylvania, did honor to the memory of Benjamin Franklin, commemorative of the two-hundredth anniversary of his birth. The different parts of the program — the foreword, committees, guests, menu, toasts, etc.— were printed in the different printing-houses of Scranton and assembled under the one cover, the result being an

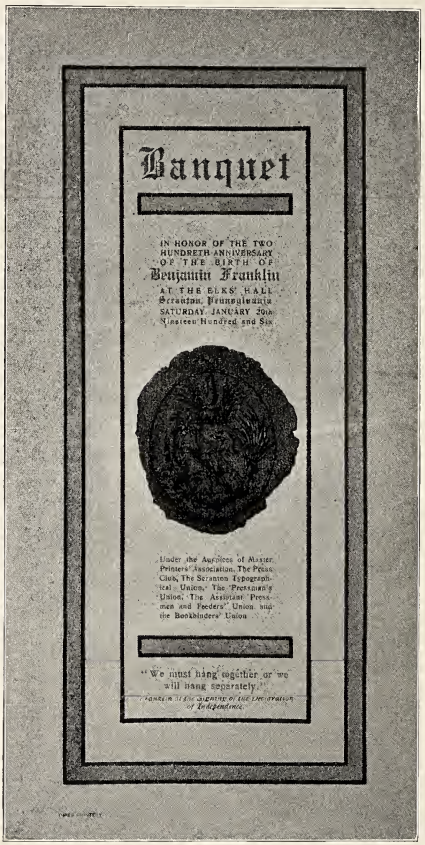


FIG. 6.

example of contrasts such as is seldom seen, as some of the departments are exceptionally well handled, while others are quite the reverse. A reproduction of the title-page is shown. The original is in black, red and gold, on light-brown stock (Fig. 6).

SPECIMENS from Charles Lawson Wood, Atlanta, Georgia, show careful attention to details. Modest type display, careful joining of rules and good presswork are noticeable features. Plain, neat printing of this variety is much more to be desired than a strained attempt at the original or unique.

SPECIMENS from W. H. Richards, Baltimore, Maryland, show a tendency toward an excessive use of tints and panels. The bill-head and one of the blotters are weighted with decoration to such an extent that the reading matter is a secondary consideration. Much improvement could also be made in the joining of rules.

M. A. JENSEN, Cooperstown, North Dakota.— The letter-heads are a trifle overornamented. Plain, modest typography is much more to be desired for commercial stationery than elaborate ornamentation. The periods at the ends of the display are exceptionally objectionable. The by-laws booklet

would present a much better appearance with the headings for the different articles in a display face instead of capitals of the body letter. More space should also be placed above these headings.

Will Ball, Logansport, Indiana.— The church pamphlet submitted is very creditable. The choice of stock for cover, body and illustrations is well made and the workmanship leaves little to criticize. The underscoring rules on the cover are too light for the heavy letter used. A little carelessness is also noted in the register.

Good half-tones, excellent decorative design and careful presswork are shown in a booklet printed for Mittag & Volger, Park Ridge, New Jersey, by the Curtis Advertising Company, Detroit, Michigan. More care in the joining of rules would have resulted in bringing the typography to an equal standard with the illustrations and design.

D. M. Benton, Macon, Georgia.— The imperfect alignment of different sizes of type when used together is noticeable in the specimens submitted, as is also a tendency to carelessness in spacing between words. The use of smaller sizes of type would also improve much of the work. Plain type-faces are preferable to scripts in business stationery.

L. Wietlispach, Streator, Illinois.—A less prominent display of the lines pertaining to the business of the firms will greatly improve the appearance of your commercial specimens. An equal display of the firm name and the business is unnecessary and results in a confusing mass of black. The joining of rules should also be given more consideration.

Originality in type-design and careful workmanship are shown in specimens submitted by F. J. Kerwin, Joliet, Illinois. A unique specimen is a cover for a booklet of Linotype faces, on which the decorative design is composed of a reproduction of Linotype matrices. The cover of a booklet for St. Mary's Academy is also an attractive rule-design.

Copies of *The Student*, the publication of the students of the Detroit Central High School, are at hand from the press of Winn & Hammond, Detroit, Michigan. It is a very creditable publication, the text being printed on rough stock and the half-tones and etchings — of which there are many — being tipped on. Typography and presswork are commendable.

Oliver C. Schofield, Richmond, Virginia.— The composition on some of the specimens shows a rather crowded appearance, this being especially noticeable on title-page of the concert program. The type and rule display on this page is otherwise very creditable. The presswork on all of the specimens shows much need for improvement, the poor joining of the rules being largely due to improper make-ready.

The Coyle Press, Frankfort, Kentucky.— The use of red and blue as a color combination is a thing which should be avoided. While the letter-head in black and red contains too much of the red, a comparison with the card will show that it is far preferable to the red and blue combination which you have used on the card. An orange or orange-red ink would have presented a much better appearance in use with the blue.

Artistic type-designs, good presswork and an intelligent use of color characterize the products of the Empire Printing Company, successors to the

The Royal Trading Co

508 SPRAGUE AVENUE *Between Howard and Stevens*

Choicest Coffees, Teas, Spices and Extracts
Chocolates and Baking Powders

FANCY EASTERN & WESTERN CREAMERY
BUTTER, EGGS, CHEESE AND OTHER
TABLE SPECIALTIES

TELEPHONE MAIN 3215

Fig. 7.

Stutes Printing Company, Spokane, Washington. A reproduction is shown of a clever business card (Fig. 7). The original is in black and red on a white card.

Blotters have been received from the following firms since the last issue: Griffith-Stillings Press, Boston, Massachusetts; John T. Palmer Company, Philadelphia; The United States Printing Company, Brooklyn, New York; John W. Little & Co., Pawtucket, Rhode Island; Gatchel & Manning, Philadelphia, Pennsylvania; The Hillsboro *Journal*, Hillsboro, Illinois; Lincoln *Freie Presse*, Lincoln, Nebraska; Photo-Chromotype Engraving Company, Philadelphia, Pennsylvania.

From the Matthews-Northrup Works, Buffalo, New York, comes an excellent showing of high-class booklets, artistic in design, handsomely illustrated and above criticism from a mechanical viewpoint. Chief among these is a private edition descriptive of the home of Solomon R. Dresser, Bradford, Pennsylvania, beautifully printed from half-tones on heavy plate paper, with a cover embossed in gold. Other specimens are a booklet of photographic views of the Kelsey-Dennis Lumber Company, North Tonawanda, New York, in black and orange brown, with an embossed cover in black and red on dark-brown stock; catalogue for the Herring-Hall-Marvin Safe Company with cover embossed in silver on blue stock, and a catalogue for Chas. A. Cyphers, Buffalo, New York, with cover in dark blue and gold on light-brown stock.

McQuiddy Printing Company, Nashville, Tennessee.— Excessive use of text-letters on commercial stationery is noticeable in the specimens submitted. A line of text in a commercial specimen is permissible and must be considered as adding a decorative feature to the work, but when text is used entirely, the result is frequently hard to read and gives an impression of too much decoration for business forms. The letter-head set in text shows carelessness in spacing in the feature line, as does also the envelope. Regard for color harmony is a feature of the work.

J. J. Butcher, Haddonfield, New Jersey.— The division of the title on the Cedar Avenue Improvement Association cover is undesirable. The

HISTORY
OF THE
CEDAR AVENUE IMPROVEMENT ASSOCIATION
INCLUDING THE
CONSTITUTION AND BY-LAWS
AND THE
ROLL OF MEMBERSHIP

Fig. 8.

arrangement not only reduces the legibility of the page, but crowds the top and bottom borders closely, leaving an excess of white space at the sides. The cover is reproduced (Fig. 8), with a resetting (Fig. 9). The original

History *of the* Cedar Avenue Improvement Association

Including the Constitution and By-Laws and the Roll of Membership

Fig. 9.

is in blue and green and gold, the heavy rule and the panel around the tree being in gold and the tree in green.

The Danville *News*, Danville, Kentucky.— In addition to the letter-head specimens being printed in colors which do not form pleasing combinations, the distribution of color is faulty. Instead of an equal amount of each color, the work should contain a large percentage of one color, with a small percentage of the other. The large percentage should be of the colder color. A still more pleasing harmony is obtained by the use of a shade of one of the colors with a tint of the other. Blue and orange would have produced a much more pleasing combination than either of the colors which you have used.

Thoroughly artistic in design and color harmony are the products of the Wright & Joys Company, Milwaukee, Wisconsin. Among the late specimens from this firm, a booklet for E. Brielmaier & Sons Company easily takes precedence. The cover is embossed in gold on pure white deckle-edge stock and tied with white silk cord. The booklet contains many half-tones beautifully printed over tint-blocks, the whole forming a handsome piece of work. Booklets recently printed by this firm for B. Kuppenheimer & Co., Mitchell Motor Car Company and Friend Brothers' Clothing Company show the same artistic treatment, the half-tones, both in black and colors, being carefully handled.

Additional specimens have been received as follows: Thomas Todd, Boston, Massachusetts, artistic calendar for April in two colors; J. T. H. Mitchell, Chicago, unique mailing card; attractive four-page circular from The Crawley Book Machinery Company, Newport, Kentucky; neat motto card in two colors from Griffith-Stillings Press, Boston, Massachusetts; Smith & Porter Press, Boston, Massachusetts, attractive calendar for April;

Drummer Printery, Lecompte, Louisiana, advertising novelties; John T. Palmer Company, Philadelphia, Pennsylvania, well-printed and attractive mailing card; E. M. Biggers, Corsicana, Texas, neat commercial specimens; The Law Reporter Printing Company, Washington, D. C., unique calendar for April; Fred W. Haigh, Toledo, Ohio, novel advertising calendar for April; G. C. Dom Supply Company, Cincinnati, Ohio, envelope slips; Wolf & Co., Chicago, advertising novelty; Pirsch Press, Dayton, Ohio, clever mailing card; George Seton Thompson, Chicago, an attractively embossed and printed announcement; Smith & Porter Press, Boston, Massachusetts, neat calendar; Frank McLees & Brothers, New York, blotter printed from cerotype; Thomas P. Nichols, Lynn, Massachusetts, attractive menu; Innes Printing House, Philadelphia, neat monthly calendar; H. Sauer, Milwaukee, Wisconsin, package neat commercial specimens; Fred W. Haigh, Toledo, Ohio, unique calendar for March; A. E. Martin, Charlotte, Michigan, original poster specimen; The Courier Company, Madison, Indiana, copy of "Progress," a monthly house organ.

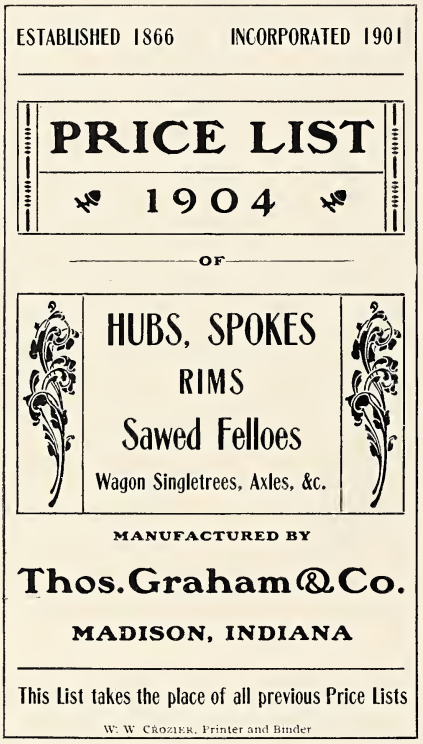


FIG. 10.

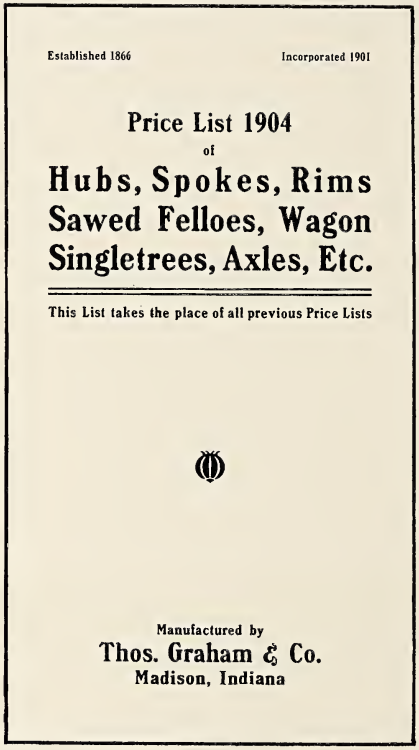


FIG. 11.

W. W. CROZIER, Madison, Indiana.—An undesirable feature in some of your specimens in colors is the throwing a little out of register of several words and running them in both colors. This detracts from, rather than adds to, the appearance of the work, and should be avoided. A tendency to overornamentation is also noticeable on some of the specimens. A price-list cover is reproduced (Fig. 10), with a resetting (Fig. 11) showing a suggestion for a less elaborate but more forceful style of advertising. The original is in three colors — black, blue and red — on yellow stock.

TYPE SPECIMENS.

FROM the Keystone Type Foundry come booklets showing the John Hancock Extended and Encore series of type-faces. Both are well displayed and show the faces advertised to advantage.

A SPECIMEN book from Barnhart Bros. & Spindler, showing some of their type-faces, borders and rules and containing examples of jobwork, is especially interesting. The designs in rules and borders are original and unique, and the color combinations will suggest much to the printer. Another interesting booklet issued by this firm is a showing of Vogue ornaments, among which are found some very clever designs.

A BOOKLET from the Inland Type Foundry contains an interesting showing of the Foster and Webb series made by this firm. These handsome faces are displayed in commercial work in an artistic and original manner.

A UNIQUE booklet with a cut-out cover is used by the American Type Founders Company to demonstrate the uses of Tiffany upright, a handsome letter produced by them. They have also issued an attractive booklet showing the Century Expanded, Century Expanded Italic, Century Bold and Century Bold Italic. The American Line Type Book, just issued, contains a comprehensive showing of type-faces and decorative material, much of which has not hitherto been shown. Among these are some advance sizes of Strathmore, a handsome letter adapted in part from a style considerably used by olden-time Spanish sculptors and artists. The decorative borders and initial letters, of which there is an extensive display, are artistic in design and will lend much to the appearance of printed matter.

THE PRODUCTION OF ALUMINUM.

The production of aluminum in the United States has increased nearly tenfold in as many years, according to the annual report of the United States Geological Survey for 1904, which has just been completed. The output of 1904 was 8,600,000 pounds, as compared with 7,500,000 pounds in 1903, and 7,300,000 pounds in 1902. When it is remembered that the industry dates its beginning from 1883, in which year the production was eighty-three pounds, its rapid development will be appreciated.

PRINTER'S ADVERTISING

THE April number of "Pure White," the house organ of The Champion Coated Paper Company, Hamilton, Ohio, contains numerous well-printed illustrations and much interesting reading matter. It is in two colors and has a cover in poster effect.

"THE PRINTER AND THE GALLEY" is the title of a unique booklet advertising the products of the F. Wesel Manufacturing Company. The cover is a pleasing design in poster effect and the body of the booklet is well displayed and well printed.

"ABOUT the only establishment that makes money without advertising is the mint" is the keynote of an attractive booklet issued by The Inland Press, Asheville, North Carolina. It is printed in black and red on India tint stock with a rough brown cover.

ONE of the most artistic calendars to reach this department is that issued by Kimball & Rogers, Evanston, Illinois. It is hand-lettered and the calendar for each month is printed in black and red on a sheet of gray cover stock, 10½ by 12 inches in size, and the whole tied with a cord.

VALUABLE information and suggestions to the buyers of engravings are found in a booklet issued by the Stafford Engraving Company, Indianapolis, Indiana, and entitled "How to Buy Engravings." It is well designed and well printed and contains many excellent illustrations in black and colors. The half-tones are especially worthy of note.

THREE artistic booklets are at hand from the E. C. Fuller Company, New York and Chicago. They were

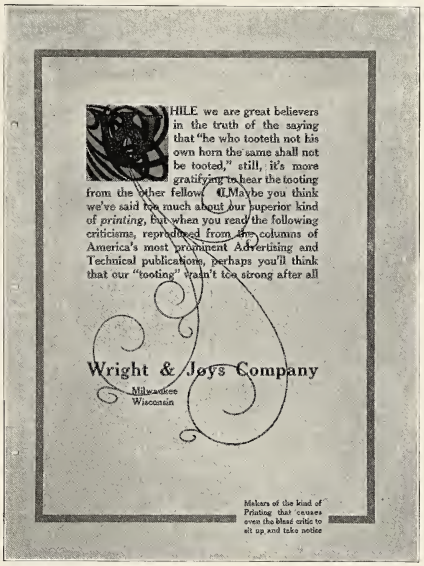


printed by Bartlett & Co. — The Orr Press — New York, and are descriptive of the plant and products of The Smyth Manufacturing Company. A reproduction of one of the covers is shown. The original is in black and gold on light-gray stock.

IN "Straight Tips," a booklet from W. H. Richards, Baltimore, Maryland, the following is found: "Of course, you don't have to have any printing done; you can use a rubber stamp for your letter-head and make out a bill-head on a piece of brown paper and save five or six dollars a year, but if you should happen to receive a valentine from the sheriff — well, you needn't be surprised."

AN artistic booklet, well designed and carefully printed, comes from the Sanders Engraving Company, St. Louis, Missouri. Its title is "Quality" and its object is to show the quality of the engraving done by this firm. This object is very satisfactorily fulfilled in the numerous half-tone and line illustrations shown.

"IN WITNESS WHEREOF" is the title of a booklet of testimonials issued by the Wright & Joys Company, Milwaukee, Wisconsin, "makers of the kind of printing that causes even the blasé critic to sit up and take notice." On the front cover, which is of rough brown stock, is tipped a handsomely printed color reproduction and the title is



embossed. A reproduction of one of the pages is shown, the original being in red, gold, and a shade and a tint of brown. The whole forms a most artistic and effective advertisement.

AN attractive booklet is that issued by Cook Brothers, Los Angeles, California, to advertise their line of business cards. It consists of eight pages and cover, 3 by 5 inches. On the inside of the cover is tipped a sample business card, showing the quality of stock and the price. With the exception of one page of reading matter, the balance of the booklet is given over to specimens of business card typography.

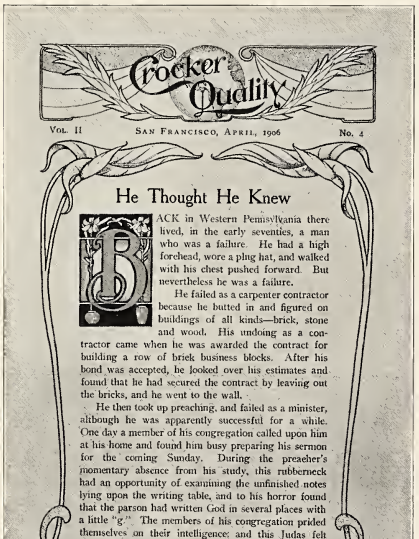
FROM Mr. A. M. Cleland, general passenger agent of the Northern Pacific, St. Paul, Minn., we have received a specimen of an Easter menu card, which is a fine example of this class of printing. An interesting souvenir given to each passenger was a picture of the Golden Gate, east entrance to Yellowstone Park, enclosed in a cut-out mount, without advertising of any kind. Typographically and gastronomically the work is unusually attractive.

A PROSPECTUS of the 1907 art calendars of the Thomas D. Murphy Company, Red Oak, Iowa, is at hand in the

shape of a booklet entitled "One Thing Well Done." The title is chosen from the fact that this company devotes its energies to one thing only — the manufacture of art calendars. The booklet contains many half-tones of illustrations for use on calendars and views of the different departments in the plant.

"THE SHARPE IDEA," as outlined by R. Lee Sharpe, Carrollton, Georgia, in his printed matter, will, if constantly carried out, undoubtedly produce results. It is as follows: "To give every man a full count; to do some printing better than it was ever done before; to eliminate errors; to be an example; to work for the love of work; to recognize no impediments; to develop resources; to master circumstances; to be dissatisfied with anything short of perfection; to print with pride."

THE April number of "Crocker Quality," the house organ of the H. S. Crocker Company, San Francisco, California, is an excellent piece of advertising literature. The designs are unique, the typography and presswork excellent and the text interesting. It can hardly fail being successful in bringing business to its publishers. A


Crocker Quality

VOL. II SAN FRANCISCO, APRIL, 1906 No. 4

He Thought He Knew

BACK in Western Pennsylvania there lived, in the early seventies, a man who was a failure. He had a high forehead, wore a plug hat, and walked with his chest pushed forward. But nevertheless he was a failure.

He failed as a carpenter contractor because he butted in and figured on buildings of all kinds—brick, stone and wood. His undoing as a contractor came when he was awarded the contract for building a row of brick business blocks. After his bond was accepted, he looked over his estimates and found that he had secured the contract by leaving out the bricks, and he went to the wall.

He then took up preaching, and failed as a minister, although he was apparently successful for a while. One day a member of his congregation called upon him at his home and found him busy preparing his sermon for the coming Sunday. During the preacher's momentary absence from his study, this rubberneck had an opportunity of examining the unfinished notes lying upon the writing table, and to his horror found that the parson had written God in several places with a little "g." The members of his congregation prided themselves on their intelligence and thus Judas felt

reproduction of one of the pages is shown. The original is printed in brown and green.

"PROFITABLE PRINTING," the house organ of The Statesman Printing and Publishing Company, Marshall, Michigan, contains much that is of interest to the buyer of printing and to the printer. Among other things in the current issue is the following: "It gets on my nerves the way some printers spend their customers' money in flub-dub and foolish frippery — ribbons and gold braid and freakish cut-outs and about twelve colors of ink — having a regular go of it to see which can screech loudest. That kind of printing runs more to money than to brains. What was it Pope said about 'covering with ornament one's want of art?' Well, it applies anyhow. This sort of printing reminds me for all the world of a show girl on parade, or a man who made his pile yesterday and is trying to spend it to-day. If you have a leaning that way, turn over a few books of the fifteenth or sixteenth century printers and learn wisdom. They'll teach you the beauty there is in simplicity, they'll teach you that it is better to spend an hour in planning a sensible, tasteful type arrangement that will make your book easy to read and a pleasure to look at, than to brood two hours over attaining a result more outlandish than the last. Also they will teach you that a little good taste goes further than much money."

A REPRODUCTION is shown of a unique calendar issued by the Williams & Wilkins Company, Baltimore, Mary-



land. The original is 10 by 14 inches in size, and at the bottom of the illustration is stitched a calendar of like size, each month on a separate sheet. The whole forms an attractive advertisement.

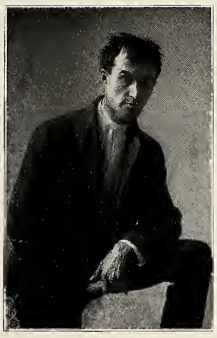
"SPRING PAINTING" is the title of a convincingly worded little folder issued by the paint department of the Joseph Dixon Crucible Company, Jersey City, New Jersey, manufacturers of graphite, plumbago, black lead, etc. The merits of Dixon's silica graphite paint are carried into the consciousness of the reader in such a way that if he has any interest in the subject of painting at all he feels that he must have Dixon's. Mr. C. H. Spotts is the manager of the paint department—but there are none on his advertising.

THE Barta Press, 28 Oliver street, Boston, Massachusetts, has sent out a fine catalogue on the subject of silverware. The cover is of heavy white stock embossed in blank with a beautifully designed fork. The depth of the embossing is unusual, and the complete and satisfactory delineation of every particle of the ornamentation is exquisitely rendered. The illustrations are made up of half-tones of silverware in great variety, admirably engraved and exquisitely printed. It is a strong piece of advertising and a fine specimen of printing.

VOLUME I, number 3, of "Letters," which the author styles as "a pigeonhole dose of ginger and gimp issued every other month," is at hand from the H. M. Van Hoesen Company, Chicago. Among other things to interest the advertiser is a recipe for composing the argument of a form letter, which is as follows: "Take several large sheets of copy paper — a ream or so will do — and before you write one word in favor of your goods — before you advance one boost about yourself, I say — think of the other fellow's views. Climb over to the other side of the

fence and look at your proposition through his eyes. Get down into tangible form, not every feature of your product, but every objection to it; not every advantage it offers, but every disadvantage; every adverse point that might keep the buyer from purchasing. Think, also, of every objection he could make to your letter, every factor that might make him indifferent to a written appeal or calloused to correspondence salesmanship. Then throw on the power switch in your mental thought factory. Think up graphic answers to the objections you have dug up. Paint your goods so as to dispel every doubt. State the facts so as to shake the bottom out of every fancied disadvantage. Then when this is done and you have in your mind or on paper a clear idea of what your customer wants and why you can give it to him, turn on your currents of ginger enthusiasm and sincerity. Two weeks later they may have to put an extra postman along your route."

J. W. Butler Paper Company, 112-118 Monroe street, Chicago, in connection with their regular advertising program, have recently sent out personally addressed letters to the trade with a card containing two photographic studies, shown herewith, which illustrate forcibly the different effects of a letter written on poor stationery and good stationery, the man representing the letter and his clothes the stationery. The card bears the motto,





THE VALUE OF GOOD APPEARANCE.

Photographs of one person. Illustrating the value of good stationery.

"Clothes don't make the man, but they do make all but his hands and face during business hours." The illustrations are two views of one man, the difference being due to his clothes.

LEGACY FOR NEWSPAPERMEN.

By his will (to which are attached two codicils) Mr. John Feeney, proprietor of the *Birmingham Daily Post*, *Birmingham Daily Mail* and *Birmingham Weekly Post*, has bequeathed legacies to the staffs of his newspapers. Editors, subeditors, reporters, salaried correspondents, clerks and foremen of departments who should be in his employ at the date of his death, and should have been so employed for at least five years preceding that date, are left sums equal to three months' salary each. All operators, machinists, and other workingmen in his employment at the date of his decease, and in receipt of weekly wages, are given a sum equivalent to three weeks' wages.—*Linotype Notes.*

PROOFROOM

BY F. HORACE TEALL.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

Punctuation.— By John Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, $1.

Pens and Types.— By Benjamin Drew. A book of hints and helps for those who write, print, teach or learn. Cloth, $1.25.

Bigelow's Handbook of Punctuation gives full information regarding punctuation and other typographical matters. Cloth, 50 cents.

English Compound Words and Phrases.— By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, $2.50.

Punctuation.— By F. Horace Teall. Rules have been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, $1.

Compounding of English Words.— By F. Horace Teall. When and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, $1.25.

Typographic Stylebook.— By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

The Orthoepist.— By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, $1.34, postpaid.

The Verbalist.— By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4¾ by 6½, $1.32, postpaid.

Vest-pocket Manual of Printing.—A full and concise explanation of all the technical points in the printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

Peerless Webster Dictionary.—A new vest-pocket dictionary based on the International. Over fifty-one thousand words; rules for spelling, punctuation, capitalization; tables of weights and measures, parliamentary law, postal information, bankruptcy law, etc. Printed from new plates. Full leather, gilt, 50 cents.

Proofreading and Punctuation.— By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typefounding, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, $1.

Correct Composition.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.14.

Grammar Without a Master.— By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who have never studied grammar at all, will find it especially suited to their needs. Cloth, 4¾ by 6½, $1.07, postpaid.

The Art of Writing English.— By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will impel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, $1.50.

The Proofreader and Grammar.— The following letter comes from E. A., San Francisco: "This was printed in an editorial in a New York paper: 'These men can not buy or steal or control or corrupt.' When it was reproduced in a Western paper the Western editor made it read 'can not buy nor steal nor control nor corrupt.' Will you give your opinion of the change? Also, if you find the first form correct, what should the proofreader have done if his opinion agreed with yours? You give great latitude to the writer, and you recently said, 'I should never think of doing anything but follow copy as a proofreader.' This is a convenient position when you would escape responsibility,

but does it not limit your duty to marking typographical errors? If you follow the rule I have quoted, have you any objection to stating what you consider the work of a proofreader? At another time you said, 'The work, after all, simply consists in seeing what is wrong and having it made right.' Where you find the writer is in error would you not 'think' of changing his copy — that is, amending the proof? Do not the answers in your department give the experience of a book reader rather than that of a proofreader in a very busy morning newspaper office? I have written at great length, but I feel certain the subject will interest many readers — as would also the list of questions you say you asked the lady graduate of the correspondence school."

Answer.— This calls for a long answer, and one that is partly personal. I shall begin with the last question asked. In this department the answers have dealt rather more distinctively with book than with newspaper work, for the very good reason that almost all the questions asked have evidently come from book workers. But, startling as the statement may seem at first reading, I have never read the proofs of a book in a printing-office, or as a printer's proofreader. My first printing-office work as proofreader was for a continuous period of six years on a New York morning newspaper, and I went from that to the editorial rooms of the Century Dictionary, where I read the whole work for the publishers, and of course in a critical, partly editorial, capacity, involving considerable exercise of thought and judgment, not the least responsible and exacting part of my duty consisting in the avoidance of undue encroachment on the real editor's prerogative of decision. When I had been away from the newspaper office about three months I met one of the floor men and he told me the cry every night was, "Oh for an hour of Teall!" I know no better way than this to assert that I am not altogether ignorant of work in a busy morning newspaper office. My only other proofreading experience in a printing-office consisted of nearly eight years on an evening newspaper.

The words asked about in the first question are right, as I see it, in the Western man's form. If I thought otherwise, however, in reading the proof I should not have hesitated a second over them. Evidence was unmistakably present that the editor wanted them that way, and the editor had full right to what he wanted. In such a matter the proofreader would be silly to make an alteration. It is one of the points in grammar on which opinions differ, and with which no one should interfere unless the conjunctions varied, in which case the proofreader should make them all the same.

What has a proofreader to do with "giving" latitude to a writer? Usually the writer has the latitude at his own command, and does not need any giving. But I am using the word "writer" with a little latitude, to include editors. On newspapers, of course, the actual writers are not the final authorities, nor are all editors. Sometimes editors do what the editor does not want done, and it is part of the proofreader's duty to correct according to his knowledge of the editor's desire.

I do not advise any proofreader to escape responsibility that belongs to him, but I do think he's very foolish when he tries to usurp responsibility that is properly editorial. When I said I should not think of doing anything but follow copy, that remark undoubtedly was in immediate connection with some matter that the editor had the only right to decide, and moot questions in grammar are of this kind. If the greatest editor that ever lived happened to write or to pass an error in grammar that was plainly nothing but an error, the proofreader should correct it. Even if an editor punctuates copy so as to make "M. A. Oxon." stand as a man's name, instead of his degree title, as one actually did, the proofreader should correct it. If the proofreader gets copy with the name MINANDOA in capitals, it is his duty to make it Mindanao. This also actually occurred. In many other ways the proofreader's duty, properly done, is helpful; but no one could possibly specify all the details, which vary greatly in different places. One of the most important duties of a proofreader is to remember that he is a subordinate worker, and to avoid taking liberties that do not belong to him.

"Simply seeing what is wrong and having it made right" involves a great deal more than marking typographical errors. Take into consideration the fact that it was said to the trade as a whole, and think a little of the scope implied by that, and you may make a beginning toward understanding its wide inclusiveness. No man could comprehend it entirely. Every bit of printing ever done is included, from the plainest to the most scientific, or abstruse, or occult, or whatever may touch the limit of difficulty. Not a sentence should pass through the proofreader's hands without his being sure that at least it is like what was written, and even that accidents in the writing have been corrected, so that it may be printed as the writer intends it. It is very annoying when a man writes that some purists do something and the printers make him say that some "prints" do it. Also, when a writer speaks of Carlyle's "eloquent language," it must jar him to see the printed matter turn it into "elegant language." The proofreader needs to know the meaning of each sentence he reads, and he will find his hands full if he does this sufficiently to be sure it is right, without stopping to dress it up to the top notch of puristic gentility, either grammatical or rhetorical, or any other -ical.

I have made a long answer to the questions, because I too feel certain the subject will interest many readers. But I have not attempted to cover the details that are suggested. I wrote a few years ago a series of articles on "Proofreading," that took more than a year to publish in The Inland Printer, and even they were not exhaustive in detail. The subject is simply inexhaustible.

I do not remember saying that I asked any lady any questions. A woman did come to my desk, after getting a diploma from a school, and prove conclusively that the diploma was worthless, because she did not know how to read proof, but not by failing to answer questions. She was tested by actual work on proofs.

G. & C. MERRIAM COMPANY PROTECTED.

A decision affecting the infringement of foreign copyrights on American publications has been handed down by the United States Circuit Court of Appeals favoring the G. & C. Merriam Company as against the United Dictionary Company. Judge Kohlsaat's finding that the United Dictionary Company had the right to publish the English edition of "Webster's High School Dictionary" because the American copyright was not included in the English edition is reversed. The reason given by the Merriam Company for not including the American copyright in the foreign edition was that it would prejudice British purchasers against the volume.

BEST PRINTER'S MAGAZINE.

We think The Inland Printer is the best printer's paper published. Best wishes to The Inland, and we hope that it will improve with each number in the future as it has in the past.— *Trent Printing Company, Knoxville, Tennessee.*

QUESTION BOX

This department is designed to furnish information, when available, to inquirers on subjects not properly coming within the scope of the various technical departments of this magazine. The publication of these queries will undoubtedly lead to a closer understanding of conditions in the trade.

SOUVENIR POST-CARDS.— M. R. B., Oceanside, California, asks for the address of a Chicago firm who can furnish souvenir post-cards. *Answer.*—The Bellman Association, 350 Dearborn street, Chicago, furnishes souvenir post-cards for the trade.

SALTED PAPER FOR DESIGNER'S USE. — V. H., Zanesville, Ohio: "Can you refer me to a dealer in salted paper for designers' use, a dealer in Chicago preferred?" *Answer.* — Eugene Dietzgen Company, 181 Monroe street, Chicago, can supply you with this kind of stock.

LEATHER OR IMITATION LEATHER CARD CASES. — J. W. N., Rochester, New York: "Where can I get leather or imitation leather card cases?" *Answer.* — The Donker & Williams Company, 1322 Wabash avenue, Chicago, manufacturers of advertising novelties, can supply you.

PATENT ROLLER TRUCKS. — F. P. T., Cleveland, Ohio: "Kindly let me know where the Shaw Manufacturing Company moved to and if they make patent roller trucks." *Answer.* — The American Type Founders Company will no doubt be able to give you the desired information.

LEATHER COVERS FOR DUPLICATING SALES BOOKS. — P. P., Great Falls, Montana: "Can you tell us where to buy the leather covers used to hold duplicating sales books?" *Answer.* — The Henry O. Shepard Company, 120 Sherman street, Chicago, are prepared to do this class of work.

GLUE FOR COVERING. — W. T. J., Vinton, Iowa: "Where can we get a first-class glue at a reasonable price to glue on the covers of a journal? We stitch through and paste covers on afterward." *Answer.* — Baeder, Adamson & Co., 172 East Lake street, Chicago, can supply you.

INDIVIDUAL MOTORS FOR JOB PRESSES.— A. P. C., Macon, Georgia: "Some time ago we noticed an article in THE INLAND PRINTER concerning three individual motors for job presses for $100. We would like full particulars concerning same." *Answer.* — We beg to refer you to The Robbins & Myers Company, Springfield, Ohio.

CELLULOID GUIDES FOR INDEX CARDS. — J. A. F., Philadelphia, Pennsylvania: "Do you know of any process for the application of celluloid guides to index cards other than putting the celluloid on the front or back and trimming it off?" *Answer.*— Write to the Celluloid Company, 211 East Jackson boulevard, Chicago, for information on this subject.

COLLAPSIBLE METALLIC TUBES.— H. Z., Holyoke, Massachusetts: "Will you please advise me where I can buy collapsible metallic (flexible) tubes for holding photo paste?" *Answer.*—The following firms can supply you: New England Collapsible Tube Company, New London, Connecticut, and the Consolidated Fruit Jar Company, 290 Broadway, New York city.

EMBOSSED DIE-CUT SCRAP PICTURES.—J. W. W., Bridgeport, Connecticut: "Can you inform me where I can procure embossed, die-cut scrap pictures, such as are used on hidden-name cards?" *Answer.*—The Donker & Williams Company, 1322 Wabash avenue, and the Bennett-Thomas Manufacturing Company, 334 Dearborn street, Chicago, can supply you.

ENVELOPE-MAKING MACHINERY. — H. M. I. & Sons, Topeka, Kansas: "Will you kindly send us the addresses of manufacturers of envelope-making machinery?" *Answer.* — The following firms manufacture machinery for making envelopes: Lester & Wasley, Norwich, Connecticut; Hopkins' Son Machine Works, 123 Taylor street, Springfield, Massachusetts; Blackhall Manufacturing Company, 10 Lock street, Buffalo, New York.

METAL ADVERTISING NOVELTIES. — "We would like to know where metal advertising specialties can be purchased. The thing we have in mind is for a concern engaged in the manufacture of steel beer cases, and it is their desire to put out a paper-weight made of cast iron enameled in various colors to represent a steel case." *Answer.* — The Donker & Williams Company, 1322 Wabash avenue, Chicago, are manufacturers of advertising novelties and may be able to give you information on the subject.

READY-PRINT SHORT-STORY MAGAZINES. — J. F. S., Washington, D. C.: "Could you advise me whether there are any firms putting out 'ready-print' short-story magazines, and, if so, will you kindly give me their addresses? I would like to get about forty pages of short stories per month, in size about 6 by 9, devoid of advertising; either 'ready-print' matrices or plates." *Answer.*— The Western News Company, 204 Madison street, Chicago, or the Associated Press, 138 Jackson boulevard, Chicago, can give you information on this subject.

MAKING ENVELOPES BY HAND. — Arthur Canary, Indianapolis, Indiana: "Will you tell me if you have or know of any book of instruction on the making of envelopes by hand. If you can furnish such a work I will be glad to know the price at once. I am indirectly interested in a house here that makes a great many envelopes by hand, but are unable to get the profit out of it we should. We use a Seybold die machine, but the fault seems to be in the gluing and gumming." *Answer.* — We do not know of any publication containing information on this subject.

BOOKS ON DRAWING AND PHOTOGRAPHY. — F. M. K., Flint, Michigan: "Could you name some good books for a photographer to study, wishing to acquire a knowledge of drawing for reproduction (in facsimile) or for photographs, or reproducing in absolute facsimile every line and dot in artist's drawing?" *Answer.* — We list the following books on this subject: "Drawing for Reproduction," by C. G. Harper, price, $2.25; "The Camera and the Pen," by Hepworth, 25 cents; "A Handbook of Illustration," by Hinton, $1, and "Photography for Artists," $1.

STEEL DIES, ETC. — H. S. E., Greenville, Texas: "Can you direct me to some firm that can make me a paper-knife to cut an oval as large as can be made from card stock 11 by 14 inches, one side at a time? Also the address of a firm that can furnish three-color cuts, 6 by 8, or printed pictures in three colors." *Answer.* — The Storey Finishing Company, 215 South Temple street, Chicago, manufacture dies such as you require; they also can furnish the press in which to do the cutting, or will do the work for you if you wish. You could cut an oval in an ordinary printing-press by procuring steel rule, such as is furnished by the American Typefounders Company, either tempered or soft, bending it to the shape desired and using a sheet of zinc or brass under the tympan of the platen press. The American Three-Color Company, Chi-

cago, can furnish three-color cuts in any size required, or three-color pictures such as you desire.

PRINTING ON SILICATE AND CELLULOID. — W. S. T., Marion, Indiana: "Enclosed please find sample of silicate. Would like information as to where to purchase same and at about what cost, also where to get celluloid and how to print on either." *Answer.* — A. A. Weeks, manufacturing stationer, New York city, can supply you with silicate. The December, 1904, number of THE INLAND PRINTER contained an article on how to print on celluloid (page 367). B. F. Blodgett & Co., Leominster, Massachusetts, can supply you, and further information on the subject may be obtained from the Whitehead & Hoag Company, Newark, New Jersey.

TICKET PRINTING MACHINERY. — A. B. W., Wilkinsburg, Pennsylvania: "I would like to ask concerning the necessary machinery required to print tickets in rolls, such as are used in the different summer amusement places, numbered, perforated, one and two colors, and rewound in rolls. We have been unable to get the names of firms that manufacture that sort of machinery. Would it require a special equipment other than that needed in a well equipped plant — other than the press?" *Answer.* — The New Era Press Company, 18 Tremont street, Boston, Massachusetts, manufactures a special press for this class of work. Full information on the subject may be obtained from them.

ESTIMATING COST. — L. B. B., Waterbury, Connecticut: "Have you in any of your issues described a thoroughly good system for cost accounting in job offices employing not more than a dozen men? Are such issues in print and can I obtain them? Can you refer me to any literature on the subject?" *Answer.* — From time to time articles have appeared in THE INLAND PRINTER on the subject of estimating cost and under the department heading, "Business Office," the subject is discussed monthly. As we have not complete files for sale we can not furnish copies of the numbers containing these articles. We would advise you to get "A Money-making System for the Employing Printer," by E. B. Stuart, price $1. The Inland Printer Company has it on sale.

J. B. LYON COMPANY TURNS OUT ARMSTRONG REPORT IN EIGHT DAYS.

There has just been accomplished at the establishment of the J. B. Lyon Company, of Albany, New York, one of the most tremendous efforts in bookmaking ever attempted. Copy for the report of the Armstrong insurance investigating committee, making ten thousand printed pages (sixteen million ems) was received at the office of that company after business hours on April 5. Notwithstanding the intervention of two Sundays, one thousand sets, bound in cloth and boxed for shipment, were ready for delivery early on April 16, the undertaking, therefore, having consumed only eight working days.

The original statement by the J. B. Lyon Company of the time required for the production of five hundred sets was two weeks — a proposal characterized as impossible of fulfilment by many practical printers. Estimates submitted by several of the largest printing houses in New York city and elsewhere ranged from sixty to ninety days. The local office, therefore, not only made twice the number of sets in a little more than one-half of the time set by it, but produced that quantity in one-eighth of the time asked by its nearest competitor for the completion of the smaller number.

An idea of the proportions of this undertaking may be formed when it is said that it involved the handling of twenty-seven tons of Linotype and thirteen tons of stereotype metal, and the ordering, manufacture and transportation from a point more than one hundred miles distant of three carloads of paper. Two hundred persons were engaged in its consummation.

That this result could be obtained without material disarrangement of the tremendous regular business of this company and by the employment of less than one-fourth of its total equipment comments favorably not only upon the efficiency of the organization of this great printing house, but upon the capability of Albany workingmen and women, as well.

"PUNCH'S" EDITOR TALKS TO PROOFREADERS.

Owen Seaman, the new editor of *Punch*, helped to make things merry at the sixteenth annual dinner of the London Association of Correctors of the Press. He responded to the toast of "Literature." He told of a leader-writer who wrote that it would be the purpose of a newspaper to call a spade a spade. The sentence appeared in print: "It is our intention to call a spade a spape."

One began, said Mr. Seaman, by calling a spade a "spape" and went on gradually to describing a thing as a "terminological inexactitude" when one meant that it was a damned lie. — *Fourth Estate.*

"FAMILIARITY breeds contempt," but courtesy, like water, is cheap, yet essential to a healthy business life.



THE OLD AND THE NEW EDITOR OF "PUNCH."

TRADE NOTES

THE Berkeley Press (Irving K. Annable) announce their removal to 127 Federal street, Boston, Massachusetts.

ON May 1 the Chicago salesroom of the F. Wesel Manufacturing Company removed from 310 Dearborn street to 150-152 Franklin street, near the corner of Madison street, one block west of the elevated loop station at Madison street and Fifth avenue.

THE copartnership heretofore existing and doing business in the city of Chicago under the firm name of Champlin & Smith has been dissolved by mutual consent of the partners, Mr. Daniel H. Champlin and Mr. George R. Smith. Mr. Smith has withdrawn from the business, and hereafter it will be carried on by Mr. Champlin under the name of D. H. Champlin Type & Machinery Company, at the old place of business of the firm of Champlin & Smith, 121 Plymouth court, Chicago.

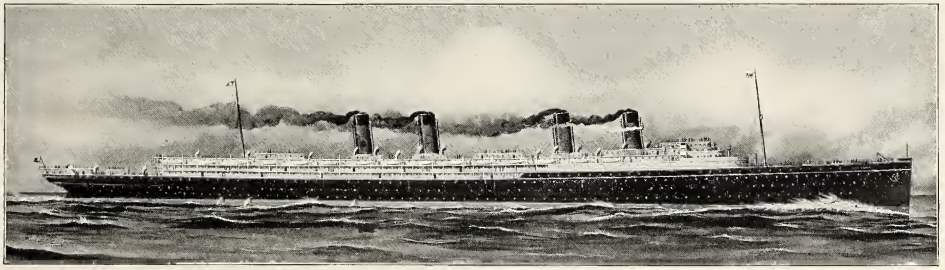
THE S. Obermayer Company, preparatory to remodeling its Cincinnati offices, has taken temporary quarters in the Union Trust Company building. Extensive improvements will be made, as the company has felt for some time that the capacity of its general offices was inadequate to meet its rapidly growing business.

HOUGHTON, MIFFLIN & CO. announce that they have established a special department under the direction of Mr. Bruce Rogers, who, since his return from Europe last fall, has equipped the printing department for outside work of the special character which has made the Riverside Press editions distinctive during the last few years.

MR. CHARLES E. THURSTON, for a number of years superintendent of the Rooney & Otten Printing Company, New York, is now superintendent of the McConnell Printing Company, 230-238 William street, New York, recently organized. Mr. Thurston is one of the best known printers in New York, and his accomplishments as a printer will make his services a strong factor in the new company.

ON April 2 the employing printers of Spokane, Washington, gave one of their occasional banquets at Davenport's. The function was in honor of Mr. John S. Pinney, of the general office of the American Type Founders Company. Each plate at the banquet was supplied with a copy of the menu, set in Linotype slugs. The menu was a burlesque imitation of a theater dodger. Mr. G. C. Corbaley, chairman of the entertainment committee, reports "a hilarious time was had."

THE Lanston Monotype Machine Company have declared a dividend of two per cent on the capital stock of the company out of earnings, payable on April 23. The vigorous advertising campaign instituted by Wood & Nathan, the selling agents, has been such as to place the records of the machine before every printer in the United States and Canada. The knowledge of printers' ink and its advantageous application in effective advertising is rarely shown to better advantage than by the Monotype advertisements. This is merely repeating the opinion maintained by the trade generally. There has been a lull in the campaign recently, but the aggressive Mr. Nathan is again in evidence with new creations from the Monotype and fresh and striking arguments.



Gigantic twenty-five-knot, quadruple-screw turbine steamships Lusitania and Mauritania, now building for the Cunard Steamship Company, Limited, Liverpool. The largest vessels ever designed, and they will carry five thousand people across the Atlantic in four days. They will be 800 feet long, 88 feet wide, 60 feet deep, 75,000 horse-power and 43,000 tons burden. Elevators will connect six passenger decks, and nearly all the luxuries of city homes — from electric curling tongs in my lady's cabin-de-luxe, to a daily newspaper with wireless press reports, have been included in the plans of these wonderful creations of naval architecture.

(From copyrighted drawing executed by Nicholas J. Quirk, after official specifications.)

PRINTERS' technical terms are peculiar and apt to excite a smile when used before the uninitiated. Our Americanisms are too well known among the craft to cause comment, but some of our English cousins' terms sound odd, to say the least. For instance, in a recent issue of the London (England) *Daily News*, among other advertisements were the following:

> COMP. requires *grass* for Thurs., Fri. or Sat.—L. S., 2 Somerset villas, Beaconsfield-road, Southall.
>
> LINO. (N. S.) 5,000. Take charge own. Changes. Accept part case or Grass. Disengaged. S. 21 Pulross-road, Brixton.

An Englishman translated the above into United States by explaining that the comp. who "required grass for Thurs., Fri. or Sat.," was not necessarily a vegetarian needing food for those particular days, but that the term "grass" was English for occasional work. The "N. S." in the other ad. is short for Non-Society, which means non-union.

THE Brooklyn *Eagle*, of March 5, gives an account of a strike of the employees of G. & C. Lewis Co., bookbinders, 218 William street, Manhattan, which proved a failure. Two binders being in arrear of dues to the union, according to the *Eagle* account, officers of the union waited on the president of the Lewis Company and informed him that the delinquents would have to pay their dues or be dismissed.

Otherwise a general strike would be ordered. Mr. Baylis, the president of the company, declining to be a collection agent, the strike was ordered, the men went out, their places were filled and the stream of trade continues. The G. & C. Lewis Co. have run a union shop for ten years and paid the highest wages.

Mr. W. P. Dunn, president of the W. P. Dunn Company, printers, Chicago, is an alderman of the city, noted for vigor and aggressiveness in everything he attempts. He was instrumental in pushing through a resolution increasing the liquor license fee to $1,000. The Chicago *Tribune*, in noting the development of the measure, says: "Mayor Dunne has signed the ordinance fathered by Alderman Dunn. Well done!"

SHORT FORM.

A famous battle has been won.
Let loose the jubilee!
It was a victory for Dunn —
The Dunn without the "e."

GOOD ROLLERS, HOW TO USE THEM AND KEEP THEM GOOD.

BY J. F. JOHNSON.*

Much has been written concerning the manufacture of rollers and the troubles encountered in their use, but little of sufficient value to the pressman to enable him to avoid the difficulties.

There is no part of the many details that enter into the process of perfect printing that receives so little attention as the rollers, yet on no part of the process of good printing is perfection so dependent.

The prevailing methods of cleaning and the facilities for handling the rollers are largely responsible for this deplorable condition. Two of the most common methods in use are to wash them in the press or on a ladder in a dark place on the pressroom wall. These methods prevent proper inspection and give extreme difficulty in thorough cleaning as well as resulting in a dirty and oil saturated floor, a very dangerous fire hazard.

The purpose of this article is to outline the method of cleaning and handling the rollers in our pressroom. It has been found to keep the rollers perfectly clean and maintain the year around that nice fleshy surface they have when they come from the rollermaker, as well as an orderly and perfectly clean pressroom. Does it pay? Just try it.

To begin with, let us advise you not to try to make your own rollers. Had you at your command the best formula for making rollers in use to-day the chances are that you would fail, as there are exact conditions which must be complied with in the making up of the composition and selection of materials.

Two sets of rollers a year should be the limit — May to September for the summer and October to April for the winter. With careful attention this should keep the average printer in good rollers. Here is a good illustration: About a year ago the writer was called by a large manufacturing concern in another city who were having trouble in making the inks on their work lie smooth on the solids on very good enamel stock. In spite of all their efforts it persisted in leaving the form with a disagreeable mottled appearance. The plant was shut down temporarily at the time of the visit. On entering the pressroom we found the rollers out of the presses and stacked on both sides of a ladder built like an inverted Λ. One glance at the rollers was sufficient to locate the trouble. Most of them looked and felt as though they had received a nice coat of varnish. A few weeks ago I was invited to look through the pressroom of another concern in the same line of business, whose product is perfect, inks lying on nice and smooth. They had occasion to wash up while we were there, which afforded us an opportunity to examine the rollers. What we anticipated was before us — rollers that evidently received as much attention as the work — the secret of success.

In the first part of May we place our summer rollers in the press. On removing the winter rollers we cover them freely with machine oil, such as is used in oiling the presses. About the first part of September we take out the summer rollers, box and ship them to be covered with winter composition, replacing them with rollers taken out in May, which we use until the return of new rollers.

If the weather is dry and you maintain a temperature of 75° three feet from the floor, your rollers will season sufficiently in a couple of days. When the rollers have seasoned cover them freely with machine oil at once and from this time on keep them covered night and day with either oil or ink.

In placing and adjusting the rollers in the press exercise great care in setting the rollers. Don't have them dragging over the form or set too light to properly ink the form. Try the set of the rollers at least once a week with a type-high gage. Instruct the feeders to avoid raising one end of the roller too high before removing the other end from the socket in taking rollers out of press, as it has a tendency to lift the roller socket out of adjustment and on return to press is liable to melt the roller by pressing too hard against the iron rider as well as preventing it from inking the form. You can not keep your rollers properly adjusted if the press sockets or roller journals are badly worn. Get new sockets and have all worn roller journals bushed. Oil the roller journals frequently while the press is running and after every wash-up. Should you have presses with angle rollers without iron riders use a little common soap in the sockets. It will lubricate them sufficiently and prevent "spinning" when leaving the ink plate.

CARE OF ROLLERS IN USE.

When inking up, put ink on all the way across the rollers. When running, put a couple of drops of machine oil or vaselin on the ends of the rollers as frequently as necessary to keep the ink from drying up. Neglect of these two requirements will result in torn and cracked roller surfaces. Should you find the ink beginning to dry on any part of the rollers it is best to wash up at once the whole press, as it is exceedingly hard to check this when once started. Should a roller be torn or cut fix it at once in the following manner. Take a small wet rag and sponge the injured part clean. In a couple of minutes it will dry. Then sponge it again. This will make the composition melt readily. Now lay the roller in a horizontal position, torn side up. Have several matches ready at hand, a light piece of twine long enough to go around the roller a couple of times and a piece of cardboard well oiled with machine oil on one side, long enough to go around the roller. Light one of the matches and hold it as close to the composition as possible without burning, at the same time pressing the tear apart that the composition may melt below the surface. Continue this match application until the composition runs together. Then place the cardboard around the roller, oiled side next to composition, and fasten lightly with cord that the composition when cool may conform to surface of roller. In a few minutes it

* Superintendent Pressrooms, Gage Printing Company, Limited, Battle Creek, Michigan.

will have cooled sufficiently. Do this if possible at the close of the day's run, so the roller may stand over night. Do not use all four of the form rollers on work that requires no more than two or three. Save the one next to the cylinder as much as possible that it may be in the best condition for heavy work. Use your riders in addition on heavy forms.

THE BEST METHOD AND MATERIAL WITH WHICH TO WASH ROLLERS.

Almost every pressman has his own opinion. In thirty years' experience we have tried most of them. About four years ago we adopted and are now using the following most satisfactory and economical method, by which we have practically eliminated the customary wash-up time of ten, fifteen or twenty minutes. We use machine oil (the same used to oil the presses) to clean our composition rollers. The reason this is better than a solvent is because it does not evaporate before you can wipe it off and thus leave a film of dissolved ink on the rollers that in time gets heavy enough to leave a hide of a lead or cardboard in thickness that is impossible to remove, and the rollers have that dry, dead, smooth surface devoid of all suction. With such rollers it is impossible to run the ink soft enough to lie smoothly on the paper. Machine oil will stay on until you wipe it off, making it possible for you to remove every particle of the ink. At the end of the day's work we do not wash up, but run a little machine oil on the rollers before removing from the press and stacking on the rack and pay no more attention to them until the press is ready to operate the next day, when they can be cleaned in about two minutes with the aid of the rack, a very neat and handy revolving stand no larger in diameter than a two-foot rule, designed to be fastened to the frame at most convenient side and in such a position as not to interfere with the operation of press, which we installed on all our presses about four years ago. With the aid of this device we have found —

(1) That the feeder is enabled to clean the rollers in two minutes, as he can use the best lighted position. He finds his cleaning materials at hand and disposes of his waste and cleaning material without having to leave the one position.

(2) That there is no oil nor ink to wipe from the floor, for the rack takes care of it all.

(3) That in frequent wash-ups during the day we can wash up the entire press in five minutes.

(4) That a very desirable saving is made in the rags used, as every press has its own clean and waste receptacles, making it possible to trace the source of all wasteful use of material.

(5) That there is an entire absence of unsightly rag receptacles scattered about the room.

(6) That a perfectly neat and clean pressroom is maintained at all times. In case ink had been allowed to dry on the rollers it is sometimes necessary to use a solvent. Follow this up with a wash of machine oil to remove what may be left by the evaporation.

REMOVING COPY INK.

About a year ago we noticed this method in a small trade journal. We have used it since then with much satisfaction and the ink had very little effect on the rollers. When you wish to clean them do not soak them with water or sponge them with a damp rag. Do not use any water at all. Water is what sends the ink into the composition. Take a half-dozen or more sheets of supercalendered paper. Lay them on the floor in a level place or on a table. Lay the roller on the sheets and take off the ink by rolling the roller on successive sheets until the paper shows no sign of ink. Then return rollers to press, ink up with black ink and wash up the same as for black.

For many years we have given our rollers the following treatment. At the end of the week we stop the presses one hour earlier than the usual time, wash up the rollers and wipe them with a wet rag from which all surplus water has been wrung out. This removes all film that may have accumulated during the week and leaves the composition perfectly clean. You can not remove this film if it has been allowed to grow for any length of time. On our winter rollers we take a little glycerin (enough to moisten the hands) and rub it well into the face of the roller. After this has been done, take a liberal quantity and go over them again. Now give another set of press rollers the same treatment. By this time the first set may be gone over again, merely rubbing the glycerin already on well over the roller. Repeat the operation until the composition has absorbed most of the glycerin. When it assumes an appearance much resembling an inked roller you may safely leave it, as it will absorb without leaving streaks. Sponge your summer roller the same way, but as soon as dry cover it with machine oil. Do not use *glycerin*. "Too much trouble," you may say. Well, it was considerable work before we installed the handy little rack, which takes out all the footwork, but we always found it paid. If you wish to experience every Monday morning that satisfaction you undoubtedly feel when putting a new set of rollers on the press, adopt this method of caring for the rollers. In our extended experience we have taken great pleasure in passing this method on to many grateful pressmen and found in only one instance this dead one — "Aw g'wan, I learnt how to wash rollers twenty-five years ago; you can't show me."

In conclusion. Keep your mind open to new ideas. Do not use winter rollers during the summer months. The warm, sultry weather brings the glycerin to the surface and your rollers will either refuse to take the ink or will deposit the glycerin in spots on your work. Keep your pressrooms at a temperature of not less than 75°, the height of the ink fountain from the floor. Your ink soft enough so that the paper may lift all the ink from the form at each impression. (Boiled linseed oil is a good and economical reducer for illustrated work.) Clean and polish your cuts and your half-tone troubles will fade away.

You will find yourself a crack-a-jack before you know it.

THE LINES OF LEAST RESISTANCE.

The men who achieve success are not those who spend their time prating of the severity of the competition they are called upon to meet, or the hardness of the conditions of production in their respective lines, but they are the men who, having entered the race and made up their minds that they will succeed, consider the conditions that they must overcome and those that they can put aside, and from that point devote all their energies to the battle with the things that may be changed, not wasting any of their gray matter upon those acknowledged to be unchangeable. No man can accomplish anything by butting his head against the stone wall of the inevitable, and the successful man is he who selects the lines of least resistance, and makes headway in them before his competitor realizes what has happened, and then it is easy for him to keep in the lead. Some printers need to study the situation from this point of view. — *Printers' Engineer.*

REPORT TO THE MILWAUKEE TYPOTHETAE OF THE COMMITTEE OF INVESTIGATION OF THE CANNON STRIKE.

From the Cannon Printing Company, of Milwaukee, THE INLAND PRINTER has received the appended report of the investigating committee on the strike against that house by the Milwaukee Typographical Union. The report of the committee is distinctly against the union, but the force of the arguments, the tolerant and judicial tone, render it one of the most unusual documents that have been presented regarding labor troubles:

To the Milwaukee Typothetae: MILWAUKEE, March 27, 1906.

The undersigned, a committee appointed to investigate the strike at the Cannon Printing Company, beg to submit the following report:

They have investigated carefully the strike in question. At a meeting of the committee, evidence was, by their invitation, submitted personally by Mr. Bernard Cannon, president of the Cannon Printing Company, and by Messrs. W. A. Arnold, Henry Ohls and J. F. Sayers on behalf of the Typographical Union, the three parties last named being those who, according to the testimony on both sides, were responsible for the strike and have directed its continuance from the start. In addition to this personal testimony, a copy of the sworn testimony made in court by Henry Ohls in the matter of the injunction brought by the Cannon Printing Company against the officers of the union was submitted to your committee as evidence by Mr. Cannon, and sundry other papers submitted by either party were received and carefully considered. The services of a stenographer were secured for the purpose of reporting the hearing before this committee, and the stenographic report of such hearing is respectfully submitted as an appendix to this report. The committee desire to express their thanks to the parties severally named as having testified before them; and since each party very willingly answered all questions submitted and gave every assistance to the committee in pursuance of their investigation, the members of the latter feel that they are in possession of all the facts necessary to report intelligently upon the case. Happily, there was practical agreement by both parties in regard to the main facts, and differences only as to resultant obligations.

It appears that the Cannon Printing Company were employers wholly of union labor prior to the strike called on January 17, 1906. Some few days prior to that date they accepted from the St. Paul *Pioneer Press* a considerable job of composition consisting of work from the State of Minnesota to be done in their (Cannon's) office. The *Pioneer Press* is one of the houses against which a strike was directed in the eight-hour campaign waged by the International Typographical Union, and the strike was still in progress at the time this work was accepted by the Cannon Printing Company. A committee of the union, consisting of Messrs. Arnold, Ohls, Sayers and President Thomas of the St. Paul union, thereupon visited Mr. Cannon and asked him to cease work upon that job, threatening that otherwise a strike would at once be called against his office. There was sufficient delay pending negotiations so that, according to Mr. Ohl's sworn testimony, corroborated by the union members at our hearing, the union formally voted that the Cannon Printing Company were, in doing struck work, violating the following provision of the contract of July 6, 1904, between the Typothetæ and the union:

"It is further agreed that, should, during the life of this agreement or before the expiration thereof, the National Typothetæ, of which the Milwaukee Typothetæ is a member, and the International Typographical Union, of which Milwaukee Typographical Union, No. 23, is a member, agree to a work-day of a less number of hours than specified in the appended scale of prices, the judgment of the two aforesaid national and international bodies shall become a part of this contract without further notice, and the party of the first part will continue to pay the scale of wages herein enumerated."

This contention being reported to Mr. Cannon, he denied absolutely that the paragraph cited or any part of the contract mentioned forbade him to accept struck work. Since, however, a difference of construction of the contract was the issue between his house and the union, he thereupon demanded arbitration under the following section of the contract which the union maintained, and he denied, that his house had violated, to wit:

"It is agreed by the Milwaukee Typothetæ, party of the first part, and Milwaukee Typographical Union, No. 23, party of the second part, that in the event of any difference of opinion arising as to the rights of the parties under this contract, or whenever any dispute as to the construction of the contract, or any of its provisions takes place, to at once refer the matter in dispute to a committee of three, the Milwaukee Typothetæ, party of the first part, to choose one and Milwaukee Typographical Union, No. 23, party of the second part, to choose one; these two so chosen shall select a third. To this committee shall be referred all matters under dispute, and its decision shall be final and binding to both parties to this agreement, to the end that fruitless controversy shall be avoided and good feeling and harmonious relations be maintained, and the regular and orderly prosecution of the business in which the parties have a community of interest be insured beyond the possibility of interruption."

This demand to arbitrate was peremptorily refused by the representatives of the union, Messrs. Arnold, Ohls and Sayers. Your committee feel bound to report that in its opinion, in this refusal the union, and particularly its three representatives already named, directly and unquestionably violated the written contract made between the two organizations. Another claim being made that the work was contrary to the "union label" contract, to which the Cannon Printing Company was a party, was met by reading from that contract that the penalty for its violation was only the recalling of the label, and that a strike would thus be unjustified on that ground. Your committee did not, therefore, feel it germane to inquire whether in fact the label contract had been violated, the point not having been pressed by representatives of either side.

It is beyond question that the attitude of the National Typothetæ toward struck work is that they will maintain the right of Typothetæ offices to do such work, when not forbidden by local contracts. There is no contract in Milwaukee excluding such work. It is equally beyond question that the tradition of trades unions is directly hostile to such work among its members. Your committee would deprecate the raising in practical manner of that long-standing issue between the two organizations at a time when, in the nation at large, the relations between the two are seriously strained.

Happily, the point was not the determining one in the breach of relations between the Cannon Printing Company and the union. The evidence shows that at the demand of the union, Mr. Cannon agreed that work on the *Pioneer Press* contract should immediately cease, and should not be resumed "so long as he desired to maintain friendly relations" with the union. He therefore telegraphed accordingly to the *Pioneer Press,* abrogating the contract. In taking this action which, however prudence may have suggested it to him, Mr. Cannon was under no contract or other obligation to do, and particularly in the face of the refusal of the union to fulfil their contract obligation to arbitrate the difference, your committee feel that Mr. Cannon did his utmost to be thoroughly just in relieving them from the necessity of doing struck work which was offensive to them.

Next day, having already abrogated the contract with the *Pioneer Press,* Mr. Cannon received a new order for the completion of the same work from the Attorney-General and the Public Printer of the State of Minnesota to be done for the account of the said State and not for the account of the struck house of the *Pioneer Press.* That telegraphic order reads as follows:

"ST. PAUL, MINN., Jan. 16, 1906.

"*Cannon Printing Company, Milwaukee, Wis.:*

"Go on with work on code for account State of Minnesota.

"Signed: E. T. YOUNG,
"*Attorney-General.*
"A. N. DARE,
"*Printer for State Code Commission.*"

Work was therefore resumed under the new order. It is evident that from this point the work was in no sense struck work. Mr. Cannon had ceased and refused to proceed with the work so long as it was for the account of the *Pioneer Press.* From no conceivable point of view can it be held that he was estopped from fulfilling an order given by the authorities of the State of Minnesota. The evidence submitted shows that the same union committee, learning of this resumption of work, refused to receive the explanation of its changed status, refused to examine the telegram from the Attorney-General of Minnesota, refused to grant any further delay, refused to state their grievances in writing, and called the strike to begin immediately. The union employees of the Cannon Printing Company responded to the call and went on strike. This was more than two months ago, and the strike still continues. These, briefly stated, are the facts, as set forth at length in the stenographic report submitted herewith.

The first defense raised by the committee of the union is that the telegraphed order of the Attorney-General of Minnesota, to resume work for the account of the State, was one which the Attorney-General and the Public Printer of that State had no authority to give, without first advertising for bids. Your committee have carefully considered this objection, and are of the opinion that a contract bearing on its face the authority of the Attorney-General of a State was *prima facie* evidence of his right to issue it, and that no duty to examine the legality of an order emanating from him is incumbent upon a layman in the law. It would be a proceeding calculated to provoke mirth had Mr. Cannon responded to the telegram of the Attorney-General, that he, the Attorney-General, was exceeding his legal authority in presuming to issue such an order. One would not have a remarkably successful business career should he refuse an order on such a ground. Your committee, being composed wholly of laymen in law, have not deemed it necessary for them to examine the legal point thus raised as between the Attorney-General of Minnesota and Messrs. Arnold, Ohls and Sayers, and it does not appear that the legal question was ever submitted to the Typographical Union itself for a vote. From the time the work was resumed under the new contract the union committee acted avowedly on their own responsibility, without referring the new question at issue to the union. We are, therefore, able to acquit the union itself from indorsing so absurd a position as this, which was gravely maintained by each of the members of the union committee that called the strike and that testified before us. Whatever be the law of the State of Minnesota, it appears to your committee that if the Cannon Printing Company chose to risk obtaining payment for their work from the State of Minnesota by honoring a

contract signed officially by its Attorney-General, no further inquiry on their part was called for.

The second point submitted in defense of their strike by the union committee is contained in what purports to be a telegram from St. Paul printed in the Milwaukee *Sentinel* two days after the strike had begun, which was submitted in evidence by the union committee, and which stated as of the date then current that the Attorney-General of Minnesota had abrogated the contract with the *Pioneer Press* and let a new contract with St. Paul parties for the work in question. The contention raised by the union committee is that that printed dispatch, dated two days later than the telegraphic order of the Attorney-General, was evidence that at the time of sending the latter the contract between the State of Minnesota and the *Pioneer Press* had not yet been broken. Your committee considering this point are of the opinion, first, that this newspaper clipping could not have influenced the union committee in calling the strike, for the strike had already lasted two days when the item was first printed; second, that, even if true, it is immaterial what contract may have existed between the State of Minnesota and the *Pioneer Press*, and the exact moment of its abrogation, the whole issue being as to the contract between the State of Minnesota and the Cannon Printing Company. Whether in fact the legal formalities necessary to terminate the contract with the *Pioneer Press* had been concluded before the Attorney-General authorized the Cannon Printing Company to do the work for the account of the State of Minnesota, your committee have no way of determining, no evidence having been laid before them by either party. Nor is the question germane. On the main question and on each subsidiary one, one must choose between the construction of the law of the State of Minnesota put upon it by the Attorney-General of that State and the construction given to it by Messrs. Arnold, Ohls and Sayers in the name of, but not with the knowledge of the union. And even if the latter construction were correct, it would still not follow that the Cannon Printing Company should have refused the contract if they believed it would be paid for; and that question was obviously for them alone to determine.

The third defense raised by the union committee is that the Cannon Printing Company violated the promise already quoted from the contract between the Typothetæ and the union, in that by doing work which a struck shop in St. Paul had been unable to perform by reason of the strike there existing in the course of the eight-hour campaign, the Cannon Printing Company were violating the truce as between the advocates of the eight-hour contract and its opponents, which, according to such interpretation, the Milwaukee Typothetæ was bound to observe. It should be observed that Mr. Arnold dissociated himself from the other members of the committee in presenting this point, as well he might, for it is obvious that if the Typothetæ and the union had contracted with each other to observe a truce as between the contesting parties in the general strike now in progress in the country generally outside of Milwaukee, the Milwaukee union was constantly violating that contract by paying large assessments into the national strike fund of the International Typographical Union. We make no such charge against the union, for it is obvious, on reading the paragraph already quoted, that no such agreement was made. According to the testimony of Messrs. Ohls and Sayers, corroborated by the sworn evidence of the former in the injunction proceedings, this novel proposition was deliberately asserted by the union itself, as well as by the two members of the strike committee other than Mr. Arnold; nor did the latter deny that the union had in fact taken this position, though he disavowed any belief in its validity for himself. Confronted with the question why, if the union put one construction upon the contract and the Cannon Printing Company another, they refused to arbitrate the question, as provided for in the contract itself, they replied simply that they could not, under union rules, arbitrate a question relating to the eight-hour matter. Nor could they show how the resumption of work on the Attorney-General's contract could have borne on that matter. It should be added that, though Mr. Arnold repudiated for himself the construction of the contract which the union had given, and which chiefly determined the strike, he yet justified the latter and admitted that he had acted with the other two members of the committee in calling and continuing it.

In conclusion, your committee beg to report specifically upon the questions severally submitted to them, as follows:

(a) They hold that the Cannon Printing Company not only fulfilled to the letter every obligation into which either they or the Typothetæ had entered, but also that in discontinuing "struck" work for the *Pioneer Press* when requested to do so by the union committee, they went farther than our contract compels us to do in order that the harmonious relations between themselves and the union might be maintained.

(b) That the Milwaukee Typographical Union specifically violated its contract with the Typothetæ in refusing to arbitrate the original differences between the Cannon Printing Company and the union with relation to the *Pioneer Press* contract; and that Messrs. Arnold, Ohls and Sayers, by virtue of their authority given them by the union in dealing with the Cannon Printing Company, but without referring the question directly to the union, violated the contract with the Typothetæ for themselves, and forced the union without its direct approval into the attitude of violating the contract, first by refusing to arbitrate the differences over the Attorney-General's contract, and second by calling and continuing a strike in defiance of such arbitration contract between the two bodies.

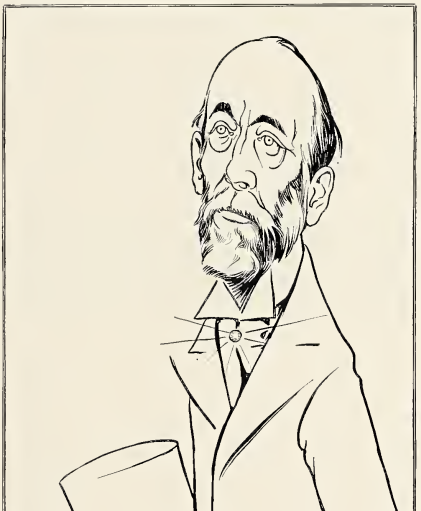
(c) Our own judgment is that personal enmity on the part of certain members of the union toward Mr. Cannon, of the Cannon Printing Company, was the real cause of the strike, and that the immediate issue was only the nominal cause of a conflict which such members of the union desired to establish. This belief, which we do not assert with the positiveness of the conclusions heretofore set forth, is based largely upon the testimony of Mr. Arnold that there had been earlier friction between Mr. Cannon and members of the union, which led them not to desire to arbitrate the present differences. Whether this belief is well founded or not, it is a matter of sincere regret to us that the Milwaukee Typographical Union, No. 23, should have been led by its strike committee, Messrs. Arnold, Ohls and Sayers, into a position so indefensible. Moreover, we believe that this dispute is of the nature that is peculiarly susceptible to satisfactory arbitration. The only real question at issue was whether the telegram of the Minnesota State authorities was a subterfuge or a bona fide contract, and three disinterested men could have solved that question easily in a very brief session. To say, as did one of the union representatives before our committee, that "We had nothing to arbitrate," does not suggest that desire for peaceful settlement of labor difficulties which union men profess, nor yet a desire to fulfil their written contract to submit differences to arbitration. If arbitration is ever to be deemed useful in any sort of labor disagreements, this was preëminently such a case.

The present status of the strike appears to be as follows: The union has no grievance whatever, real or imaginary, against the Cannon Printing Company at this time; has made no demands upon that company since the men were called out, but persists in maintaining an attitude of aggressive persecution by continuous and repeated attempts to cripple the Cannon Company by attempting to induce men to leave its employ, and by means that seem to us unfair, to throw discredit upon the Cannon Company, with what end it is extremely difficult to determine.

We recommend to the Typothetæ the adoption of the following resolution:

"*Resolved*, That the report of the committee of investigation of the Cannon strike, with its accompanying papers, be placed on file, where members of the local Typothetæ or of the United Typothetæ of America may have access to it on request, and that the committee be discharged from the further consideration of the subject."

(Signed) Frederic C. Morehouse,
Chas. Gillett,
Geo. H. Owen.



BUSINESS NOTICES

This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

OLD and dirty half-tone cuts filled with dried ink are the bane of the pressmen, an appreciation of whose troubles has induced Mr. J. F. Johnson, 15 Garrison street, Battle Creek, Michigan, to place on the market an outfit which is warranted to clean and polish the hardest proposition a pressman can experience in this line. Mr. Johnson's advertisement appears on another page of this issue.

THE Johnson Automatic Roller Rack and Perfection Adjustable Overlay Table, two conveniences, the inventions of a practical pressman, have been placed on the market recently, and are receiving the favorable testimonials of those who are putting them in use. The rack is attached to the press, doing away with wall racks and giving an increased working space in the pressroom. The rollers are handled conveniently, washed rapidly, and oil and rags are economized. The Johnson Overlay Table is constructed entirely of iron, except the cutting-board, and is light, strong and substantial. It is mounted on ball-bearing piano-wheel castors, so that it can be readily placed at the most advantageous point for the pressman to make ready while watching running work. The advertisement of the Johnson Automatic Roller Rack Company, Ltd., Battle Creek, Michigan, appears on another page of this issue.

THE Dewes punching and eyeleting machine, which is being introduced to the trade by E. G. Ackermann, 290 Broadway, New York, is so designed that it can be used either for punching or eyeleting, independently or in combination. It is the most simple and effective on the market, and an all-around machine for jobwork. The feature of combining two machines — punching and eyeleting — has been tried in the past with but indifferent success, owing to the difficulty in operating the various mechanical movements, and at the same time having sufficient rigidity to keep the tools in an operative condition. In the Dewes machine the punch and eyelet-set are combined on one head and the work shifted automatically from the punch to the eyelet, insuring perfect work and giving great strength to the machine. The machine is fitted with gages that can be adjusted to a great variety of work, such as the punching and eyeleting of cards, calendars, tags, tablets, cloth samples, index work, etc. It will also punch and eyelet metal attachments to cards and tablets, and long strips up to five inches wide can be fed by an automatic attachment. Changes to different sized holes and eyelets can be made without trouble, and holes can be punched and eyeleted any distance apart up to four inches. The capacity of the machine depends only on the dexterity of the operator. An illustration of it may be seen in the advertisement on another page of this issue.

GALVANO STEEL GALLEYS.

It would be a matter of astonishment to the ordinary layman if he could be shown the amount of material that is in daily use in the properly systematized printing-office. In nothing would this be a greater surprise than in galleys. Wherever Mergenthaler Linotype slugs or machine-set type is stored, the matter of galleys means a serious expense. Brass galleys run into money. The Challenge Machinery Company, of Grand Haven, Michigan, has solved the problem of a low-priced galley. They are just putting on the market the Challenge Galvano Steel Galley. These are made of galvanized sheet steel. Nothing could be more durable, and the galvanizing assures freedom from rust. They are made accurately. Excellent proofs can be taken in them, and the cost is only a fraction of the high-priced brass galley. They are kept in stock in all of the regular book, news and job sizes, and special sizes can be furnished on application.

CHAMPLIN TYPE AND MACHINERY COMPANY.

Of the changes occurring this spring among the dealers in type, printers' supplies and the kindred lines, the most notable perhaps is that of the dissolution of the firm of Champlin & Smith — the head of the firm, Mr. D. H. Champlin, having purchased the interest of Mr. Smith, has organized the Champlin Type and Machinery Company, which will continue the business at the old location, 121 Plymouth court, Chicago. All lines of goods handled by the old firm will be continued by the new one, Keystone Type and Golding Machinery still being leading features. Some important new lines about to be added will be announced later.

The new firm occupies a position somewhat different from the usual dealer whose business is generally localized. Owing to their specialties and their strong lines of machinery, and also to the extensive acquaintance of Mr. D. H. Champlin in the large cities, their dealings cover a wide range. The Patented Combination Chase, which they own, is already in use in nearly every good-sized city from Portland, Maine, to San Francisco, California, and in many Canadian cities.

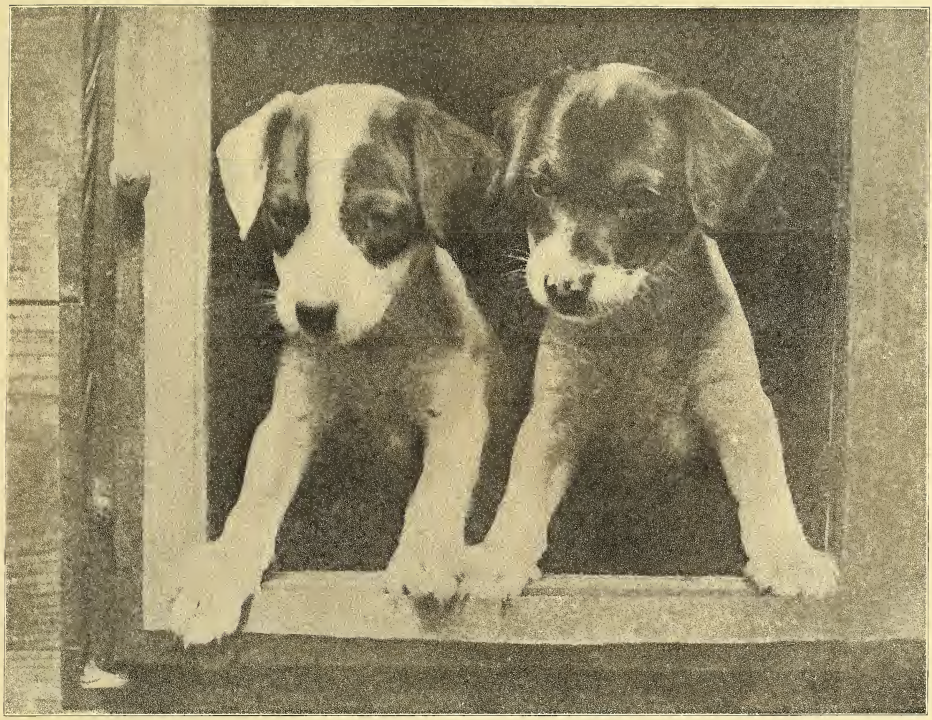
The American Press Seat, for which this concern is the exclusive agent, has been placed in offices throughout the States and in Canada.

A motto of the old concern was "Our customers say we give better service than they get elsewhere." The new concern proposes to maintain this and even render it more emphatic.

With the best of goods, straightforward business methods and unexcelled service they are prepared to take the best of care of all business intrusted to them.

PAPER-CUTTER IMPROVEMENT.

Printers, bookbinders and the great number who use paper-cutting machines will be pleased to learn that an improvement has been made that overcomes the trouble experienced by all users of such machines. The practice has always been to insert a square, narrow strip of hard wood in the bed of all cutters, upon which the knife descends, and into which the edge enters a very little every time a cut is made. After a few cuts the wood chips out and a trough nearly a quarter of an inch wide is left in the stick, due to the knife springing and not descending upon the stick in the same place every time. This causes the bottom sheets of a pile of paper being cut to enter the depression, roll up and tear at the edges. To overcome this a new stick must be inserted or a sheet of tough cardboard or



"Who Whistled?"

The Inland-Walton Engraving Co.,
120-130 Sherman St.,
Chicago.

strawboard placed beneath the paper every time a cut is made. This is very annoying and entails considerable expense. Frederick G. Willard, a practical printer, of Utica, has invented a substitute for this cutting stick, which is circular in form, and is turned automatically a little after each cut. The act of cutting the paper closes or heals a wound previously made in the cutting surface by the knife, and for this reason the device will never need to be removed or renewed.— *Herald-Dispatch, Utica, New York.*

A MODEL FACTORY.

The John Thomson Press Company, makers of the "Colt's Armory" platen presses, has completed a new factory in New York city and moved its plant from Hartford, Connecticut, to the new location.

The building is designed to afford great rigidity, the most advantageous placing of machinery and an abundance of light throughout. The structure is of steel and brick, the heavy machinery is set on the first floor on deep concrete foundations, the window area is about eighty per cent of the area of the side walls and roof. The principal offices and drafting-room are on the second floor, front, and large fireproof vaults provide safe storage for drawings, patterns, etc. The construction is "slow-burning," and automatic sprinklers and a separate fire-pumping system are to be installed.

The power plant is a separate structure and is equipped with a gas producer which makes power-gas from coal and delivers it to a gas engine which is direct-connected to a dynamo. The power is electrically distributed to motors in the main building, suspended from stringers secured to the steel beams. These motors drive short sections of line-shafting which run in roller bearings. A hundred horse-power boiler provides for the heating, but the factory is not heated by steam direct, but by a forced draft of warm air.

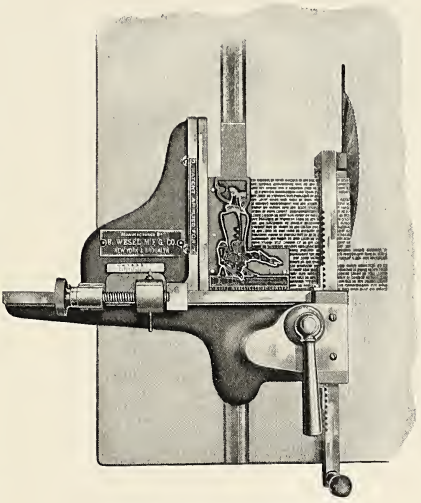
The building contains about 31,000 square feet of floor space, and adjoining lots have been purchased and the building so designed that additional space may be added as required without interfering with the regular operation of the factory.

The site of the plant is in that portion of Long Island City lying along the East river, and shipping facilities by rail, water, or truckage are unexcelled. A large proportion of the employees of the company have elected to leave Hartford and follow the factory to its new location. Comparatively few realize the vast and sweeping changes now being made in this section of "Greater New York." The Pennsylvania railroad tunnel is being driven from two headings, the trolley or "Belmont" tunnel from four headings, and the Blackwell's Island bridge is partially completed. All the entrances to these are within a radius of half a mile from the factory, and will make it as accessible from the Grand Central railroad station as are the city hall or post-office.

SLIDING CLAMP FOR LINOTYPE MATTER.

A useful device for job and newspaper printers has just been put on the market by the F. Wesel Manufacturing Company, in the shape of a sliding clamp for the rapid and accurate handling of Linotype matter on the saw table. The advantages of this attachment are well shown in the accompanying illustration. Both the clamp and the gage can be instantly set and locked at any desired point within the capacity of the device, and the gage is graduated by picas, also having an indicator to show the number of picas and a micrometer adjustment to show the number of points being cut from the work. No matter what the length of the slugs, they are always clamped at a point next to the saw blade, and can not spring.

The capacity of this slug-cutting attachment is forty picas in length, fifty-four picas in width and it gages



LINOTYPE CLAMP AND MICROMETER GAGE.

within five picas of the saw. It was designed to fit the popular and low-priced printer's saw table, manufactured by the Wesel people, many hundreds of which are in use. Though new upon the market, the attachment has received the most flattering praise from its users.

A NEW ROTARY PERFORATING MACHINE.

The advantages of the rotary perforating machine just placed on the market by the National Perforating Machine Company, of Kansas City, Missouri, have met with instant appreciation by the trade. The Carlton Rotary Perforating Machine, which is its distinguishing title, has new and novel features, among which is its ability to perforate, cut, trim and score paper all at one operation. There is no burr left on the reverse side of perforation and work can be run either before or after printing, so that presswork need not wait for perforation, or vice versa. The machine is fitted with a perfect delivery by which the paper is left squared up so that it can be easily handled, and the feed-guides are arranged so that work can be fed from right or left at the will of the operator. The machine never clogs; indeed it can not as it makes a clean cut through the paper but does not cut any particles away. In short, the machine is made along entirely new lines. The divisional perforations are formed by a disk having its periphery divided into blunt impress surfaces acting upon the hardened peripheral face of a rotating platen, thus making a clean cut, and leaving no ridges or rough surface on the under side of the paper. Each perforating disk is mounted in a separate bearing and is adjustable longitudinally and circumferentially. Each disk is independent of every other disk and can be separately adjusted with the greatest nicety to make the proper impression on the paper. There

is a perfectly smooth, highly tempered steel cylinder running the whole width of the machine upon which the perforating disks bear just hard enough to puncture the paper as it passes through, and the only adjustment is to space off the perforating disks to the desired width. The perforating disks are not set rigidly against the cylinder, but the tension is controlled with a spring. The steel cylinder and the perforating disks are made of the best of steel and tempered so hard that they just roll together without damage to each other, with pressure enough from the spring to puncture whatever passes between them. There is not a gear wheel about the machine and only one shaft that revolves from twenty to thirty revolutions per minute; only two boxes to wear, no tapes, no rubber bands, no carrying devices or attachments of any kind — the cylinder and disks do all the work.

An illustration, with other facts about the machine, will be found in the advertisement of the company on page 172 of this issue.

IMPORTANT PATENT DECISION.

Judge Ray has just handed down a decision in the United States Court for the Southern District of New York, in a patent suit, which is of great importance to the bookbinding trade.

The Smyth Manufacturing Company, of Hartford, Connecticut, manufacturers of the well-known Smyth book-sewing machines, brought suit against T. W. & C. B. Sheridan, agents for the National and Martini book-sewing machines, for infringement. The patent upon which the suit was brought contains broad claims covering important features embodied in the Smyth machines, and Judge Ray's decision places a very broad interpretation on the claims of the patent and holds the Sheridan Company as infringers.

This decision, therefore, gives the Smyth Manufacturing Company the sole right to manufacture and sell book-sewing machines in which are embodied features covered by the claims in the Reynolds and Jacobs patent.

E. C. Fuller Company, of New York and Chicago, are the American selling agents for the Smyth Manufacturing Company.

SOME MORE DECIMAL ACTIVITY.

Apropos of the "Metric" system, it is of the greatest possible coördinate value to note the present movement of the American Institute of Electrical Engineers through Mr. F. B. Crocker, chairman of the standardization committee. The institute is seeking an expression of its members in the form of a letter ballot "in favor of" or "against" the resolutions which follow. These resolutions were favorably reported to the board of directors on March 23. The results of this ballot are to be submitted to the Congressional Committee on Coinage, Weights and Measures, before May 1:

WHEREAS, The Metric System of Weights and Measures offers very great advantages by its simplicity, consistency and convenience in every-day use, as well as in engineering and scientific calculations and computations; and,

WHEREAS, These advantages have already been demonstrated by the universal adoption and entirely successful use of the Metric System in all civilized countries, except Great Britain and the United States; and,

WHEREAS, All the electrical units in universal use, such as the volt, ampere, ohm, watt, etc., are metric units; and,

WHEREAS, The industrial use of these electrical units would be much facilitated by the general adoption of the metric system:

Resolved, That this committee unanimously recommends the introduction of the metric system into general use in the United States at as early a date as possible without undue hardship to the industrial interests involved.

Resolved, That this committee favors such legislation by Congress as shall secure the adoption of the metric system by each department of the National Government as speedily as may be consistent with the public welfare.

F. B. CROCKER, *Chairman*.

Written for THE INLAND PRINTER.

THE KNOCKERS' TABLE.

BY JOHN T. BRAMHALL.



THERE is a round table in the café of the Chicago Press Club which is known to the initiated as the "Knockers'" table. Not as a term of reproach, either, but rather as a modest style of glorification, as the title "Philistine" was adopted by some gentle spirits whose hand was against no man. In truth the Knockers knock nobody and nobody knocks they. There are other tables, affected respectively by the "Hucksters" or trade-paper men; the "Section Gang," or railroad and engineering paper men; the "Forty Thieves," a libelous cognomen bestowed upon the publishers; and the "Vestry," where the club officers usually gather to discuss business, and then there is the long table, like this: $\frac{0000000000}{01 \qquad 10}$, which the irreverent style "The Last Supper," which is where the elect sit when there is a "function." This must not be confounded with the other long table, known as the Reporters' table, which is the very reverse of the above, and is like this: $\frac{1}{0000000000}\frac{1}{.}$ This, however, is not in the Press Club café, but in the dispensary of the pie foundry, on the street.

It is no close corporation that forms the "hoonta" of the Knockers' table. You may meet a well-known author, whose ordinary conversation sparkles with epigram so that you wish you had a basket; a poet, with the wit of Diogenes and the gentle soul of Elia; a pen artist and playright, whom nature built in double size to hold the great heart she placed in him; and beside him is the Unscrupulous Boss, whom you would better consult if you have political ambitions, but here he sedulously eschews politics, and like old Diedrich Knickerbocker in the circulating library of his friend, John Cook, he "drinks spa water and talks about the ancients." Here again is a ready quoter of Scripture who was obliged to take over a Mexican mine for an advertising debt, and found it to be a chunk of solid gold, which has so far, however, failed to affect his perennial good nature. Here too, is a civil engineer (one of the few civil people at the table), who can give you the latest on the molecular theory, or enlighten you as to the building of Solomon's temple. Here are a couple of writers of national fame, and between them, quite conveniently, a publisher's agent who is glad enough to take their MSS. without reading. Extremes meet, for antipodean to the trade-paper man who was fortunate enough to lose his job on a daily and is now well to do in consequence, is the poor editor of a suburban weekly who wishes he knew how to pay his white-paper bill. Though it takes a linguistic center rush to sit in with such an aggregation of intellect there is one silent partner who is tolerated on account of his excellent qualities as a listener. It is a simple proposition that there need be but one Boswell where all the rest are Johnsons. And so, while others fence across the board or tell their ancient tales, the Librarian quietly pulls his beard, eats his simple meal of "chicken feed" or "excelsior," and catches as many of the good things as convenient and lets the "hot ones" pass harmlessly by.

The Knockers' table is the reverse of the bed of Procrustes, being so elastic that there is always room for one more, and like the great bed of Ware can better entertain a dozen than one. So it is that loyal Knockers often bring a friend (recommending a previous cold bath and exercise) who may perhaps be a parson, a candidate for Congress or an out-of-town editor. It is understood, however, that he brings no chestnuts with him.

Not the least of the good things that can be said of the

Knockers' table is that here nothing is ever said that might, as it were, bring a blush to the cheek of innocence, for here sits the Censor himself, with deep-sunk eye and stern, forbidding visage that would well become a Dominican cowl, and if an expression were dropped — nay, a word — which would debar second-class matter from publication, he would be the first to stamp it with his disapproval. In fact, the only person whom the Knockers will not shove up for is Captain Costigan.

And if ribaldry is tabooed, so is business. I can not picture to myself the fate that would inevitably befall the unthinking man who should introduce, for example, the subject of life insurance, or a real-estate deal, at the Knockers' table, as I have heard them noisily proclaimed at common, ordinary, hoi-polloi restaurants. He might be scalded in coffee, or smothered in pie, or disgracefully drowned in water; or he might be put to the torture of silence. Another subject, which though not entirely forbidden is seldom mentioned, is politics; the common politics of the day. I mention these things here, as some of my readers might have the honor of an invitation to the Knockers' some day, and a little instruction, as was given in Queen Anne's time to the officers of the guard, not to throw the bones under the table, might not be amiss. The Unscrupulous Boss himself never remotely refers to the subject, and the Editor never discusses it. Public measures often come up for attention, and are commented on, briefly and pointedly, and then the talk turns to the stage, the current book or story, or the latest move by the President. Apropos of this, when the Editor the other day called down the Mexican for the offense of talking politics, the latter gracefully told the story of the stockman who calmly and without remonstrance permitted a stranger to kiss his wife, but who would not consent to his opening the tariff debate at his dinner table. And this is the sentiment among the Knockers.

The Knockers' table is, indeed, a cosmogony of Chicago, with the striking omission of the commercial spirit. "Hamlet with Hamlet left out," you say. Not entirely so. It is inquiring, anxious to understand every question from the other side; optimistic; even esthetic; impatient of priggery and sham, and thoroughly sincere. To sit at the Knockers' table is to take a course in applied civilization.

THE LIBRARIAN PRESENTS SOME MSS.

"I have here," said the Librarian, who came in late to the Knockers' table, as usual, compelling the others to make room for him, "some unpublished manuscript that I think will be interesting."

"Most of us have goods of that description," said the writerman.

"If it is your own," said the Mexican, "you may file it away."

"Barking up the wrong tree, as usual," said the Librarian, quietly. "On the occasion of one of our high jinks given to the Press Club ladies to square ourselves for a prolonged season of closed doors, the authors kindly contributed some original sketches, ——"

"Uncalled-for garments," commented the Mexican.

"Original sketches; but owing to the very lengthy program — no, I did not say proggr'm — this eleemosynary labor proved a work of supererogation."

"Leave the table," said the Mexican, "and understand that such ribaldry is not permitted."

"And the result is that I have them on my hands," continued the Librarian, unheeding the interruption.

"Which shows they are of no value," said the Mexican.

"As I have not seen one of yours among them, I would hardly say that," retorted the Librarian. "But I was about to ask what your collective wisdom thought of publishing them for the benefit of the Authors' Fund."

"At your risk," stipulated the Publisher.

"Better assess the subscriptions, and use the stories as a club for those who fail to come down," said the Mexican.

"And when you have finished your baled hay, we will appoint the Trade-paper man, against whom we have a grudge, to look over the stuff with you, for he knows the market value of goods," said the Doctor, for authors, like prophets, are not without honor except in their own country.

The Librarian and the Trade-paper man accordingly withdrew to the Dead Men's Corner, and the Librarian read the first of the papers, which was as follows:

ABEY-AB AND THE SEA-SAW.

If there was one feature of the landscape that impressed the dawning intellect of Abey-Ab with its dreariness and total lack of variety, it was the seascape. Since his visit to the shell people and his loss of forty cowry shells in their shell game, which was the precursor of bridge, he had felt even less love for the sea than before, but he had a sneaking sort of intuition that after his recent adventures with the saber-tooth and the mastodon that these families had it in for him if he ventured too far into their bailiwick. As he read from the simple weather indications of the day, the smoke rising perpendicularly from his home fire, he determined upon an expedition across the estuary in his new possession, his yacht — his coracle, to be precise — for he had already evolved that primitive and valuable idea in transportation, the importance of the short haul.

We have already seen how the coracle was formed out of the dried hide of the aurochs, which had been carelessly thrown over a pile of brush and which, offending the growing niceties of his sense of smell (another evidence of dawning civilization), he had thrown into the water, where it floated about with a cobble stone or two for ballast. And it will be recalled how Be-aye Bay had noticed the floating thing, and how in an unguarded moment he crawled into it as it lay upon the beach; and great was the child's delight when he found that it would rock quite as easily as his cradle in the tree top. But not so great was the youngster's delight when he saw that in some way or other the home fire and the midden and the lodge were running away from him, and with them his prospects for dinner. So, with the primitive instinct of the race in distress, he lifted up his voice and bawled lustily. The maternal instincts of Ma-Ma had kept her ears open while engaged in the occupation of plucking a couple of birds, during which we may imagine that she grumbled somewhat that her lord and master had not provided a goose, which would have called for no more labor and would have provided oil for cosmetic. But her weather ear was open, as we have said, and at the first shrill cry she leaped quickly to her feet, heedless of the birds that fell into the fire, and rushed to the beach. Nor did she pause to divest herself of her clothing that would impede her movements, for in all truth and honesty the ladies of the day had literally the same complaint as Miss Flora McFlimsey: "Nothing to wear"; so, all unaccoutered as she was, she plunged into the tide, and swimming with lustier strokes than when she took that famous swim with Abey-Ab, she soon caught up with the auroch hide, and pushed it easily to the shore, where, after soundly boxing the ears and other parts of the chubby anatomy of Be-aye Bay, she let it lie upon the shingle.

But the inventive mind of Abey-Ab had prompted him

to fasten some branches on the hide, as braces, and otherwise in a rude fashion of his own to tinker the thing up, and he had tried his own weight in it, and after finding that he could push himself along with a stick and the flat of his hand, had fashioned a rude sort of paddle, and was now, in fact, a navigator.

So, on this morning of which we speak, Abey-Ab essayed an excursion across the frith, where the indications for game were better than in his own inhabited neighborhood, and knowing full well that if he got a ducking he could swim for it, for his Waterbury watch would be none the worse. It was when he was midway in the channel that a curious thing protruded into the bottom of his boat, the same being a broad blade of bone, armed with teeth upon both edges. The frail boat, too, was nearly capsized by the blow, and was now tossed backward and forward and round about, so that Abey-Ab, had he had a less strong head than appertained to the people of the day, would have become dizzy. As it was, he quickly realized that he had been attacked by some creature of whose character and habits his previous experience gave him no information, and being of a nature curious and adventurous, as well as somewhat angered by the abruptness of the attack, which had deprived him of his best spear and bow, by throwing them into the water, he grasped his knife and hastily dove into the sea after his enemy.

And then there ensued a struggle which the people of our day would have given the price of a football game to see and thought themselves well repaid, for fish and man and coracle were whipped about into a mass of foam. Had the great fish been able to free himself from the auroch hide, he would have made short work of Abey-Ab and rubbed his flat nose on the bottom of the sea, but hampered at both ends as he was, for the strong hands of the man had gripped him by the tail, he put up a stubborn fight and endeavored to wear out his air-breathing adversary, and would surely have done so, had not a third party come to the rescue.

For Ma-Ma, who since the adventure of Be-aye Bay, had no great opinion of the auroch hide as a means of transportation, had been an anxious spectator of the fray, and seeing the dreadful battle approach the shore, had swum out like a true helpmeet as she was, to the rescue of her consort. Nor did she pause to ask questions, as some wives of the present day might do, but plunged boldly into the fray, and fastening her fingers into the great red gills of the fish, and calling upon Abey-Ab, when she could get breath, to hold on to the tail, the two of them soon had the swordfish at their mercy and towed him, coracle and all, to the shore.

Then spoke the woman: "Did I not tell you, Abey-Ab, that that thing was not a good go-thing? You might have saw as much for yourself."

"No, the fish might have saw. I saw him saw into my boat."

"No, Abey-Ab, I came, I saw, I got you out."

"But see this tooth; this sword with teeth all over it," said Abey-Ab, avoiding a controversy.

"I see, I saw," she replied.

"Then it must be a sea-saw," said Abey-Ab. And this closed the incident, while Ma-Ma cut some slices from the great fish for their supper, which, as suppers went in that primitive time, was not half bad.

"That's not a bad story," said Joe, when the reading was concluded, "and I have no doubt that it will be adopted as supplementary reading by the school board, to cultivate, in the minds of the young, a knowledge of the habits of our earliest ancestors."

THE LIBRARIAN READS ANOTHER MANUSCRIPT, WHICH IS FAVORABLY RECEIVED BY THE CRITICS.

"The next story I will read to you," said the Librarian, as the committee of the Knockers' table met, pursuant to adjournment, "is not up to the author's high level."

"Few of them are," said the Trade-paper man. "I know these fellows. They are filled up with the next story before the one in hand is finished, and they slap it along, hit or miss."

"Well, here goes then," said the Librarian. "I suppose you will say that it is nutty at the start. It is entitled: 'Woodchuck Hollow, by Ropey Weed.'"

Woodchuck Hollow lies in the middle part of Tennessee. Here are broad pastures flecked with daisies, and on the poorer knolls may be detected the velvety leaves of the mullen, known in English conservatories as the American velvet plant. Among the neighboring hills winds the clear stream called Pebbly Run, whose smooth waters now mirror the skies, then caricature the sun and anon break into ripples of laughter at the stately cardinal flowers upon the banks, in which merriment the trout, careless of the gaze either of plotting schoolboy or ruminating cow, often join and leap for joy. The smiles of last night's moon, and the winkings and blinkings of Venus and her attendant luminaries, are carried down on the bosom of Pebbly Run and given freely to cow or schoolboy, or to the brown-faced maiden with bucket on arm who may be crossing the rude footbridge formed of the trunk of a great sycamore.

In the fence corners and along the lanes grew the odorous jimson weed, the elecampane, fennel, dock and thorowort, while in the woods might be found the mandrake and the bittersweet and many other favorites of the grandmothers and the herb doctors, and to which was owing, no doubt, the distinctly dopey flavor of the air of Woodchuck Hollow. The locality owes its name to the great number of woodchucks which infest the productive fields, feeding upon the clover roots and taking large toll from the farmers' grain. The woodchuck is, indeed, a grafter, but as he is a humble one, and does his grafting in quite an open and honest way, he has no friends, and the prevailing avocation of the denizens of Woodchuck Hollow is the shooting of this vermin, which is done not with the shotgun, but with the rifle, that distinctively national weapon with which Americans, and especially Tennesseeans, have become so proficient.

Woodchuck-shooting, in the region of which I speak, is not a diversion, but an art. The hunter must not be content to nail up a large number of skins upon the side of his cabin, but they must be free from bullet holes. For such is the clear vision and the accuracy of aim of the nimrods of Woodchuck Hollow that they lie along their stump fences and drop the unsuspecting rodents from a distance of five hundred yards or more with a shot through the eyes as they impudently survey the landscape from their hillocks.

And more than a score of such skins had Abel Hickman tacked upon the log ends and sides of his cabin. They proclaimed its owner a person of consequence to Joshua Jones, the schoolteacher, as he rode up to the door at the close of a summer's day, his saddle-bags filled with papers and his head full of learning. In answer to his summons, a man who looked like a dope fiend opened the door.

"Evening, sir," said Joshua. "May I have supper for myself, and horse and lodging for the night?"

"We don't keep no tavern, stranger, but I reckon we can take care of you, if you're not too particular," replied the man, sizing up the stranger to see that he was no hated revenue officer.

"You will find that I am not squeamish, and I can honestly say that I would rather partake of your hospitality than to pay twenty-five dollars a day at the Waldorf-Astoria."

"Thank you, stranger, won't you 'light? I'll give your horse some hay and corn."

"I will, and thank you. 'Provender for one's horse is better than a feast for the master,' says the Arab," replied Joshua, dismounting.

"Where are you from, stranger?"

"I am from the East. I came from Richmond, and my name is Joshua Jones," replied the traveler.

"Richmond? That's the other side of the mountains, isn't it?"

"Yes, the mountains are between us and Richmond," replied the schoolmaster, carefully emphasizing the point that Richmond was of more importance than the mountains.

As they entered the house, a young girl came into the living-room from the outside kitchen, bearing a platter of fried bacon and potatoes, the steam of which was very fragrant to the traveler. Her face was one of calm, silent beauty, but her large eyes were full of sadness, or of dope. Then a sallow, careworn woman, who seemed to be a victim of the pill habit, set a dish of bread on the table.

"M'lissa," she said, to the young woman, in a dopey kind of way, "tell your uncle dinner's ready."

"Uncle, aunt says dinner's ready," announced the girl.

"M'lissa, tell your aunt there's a stranger here, and ask her to set on another plate. Stranger, pull up a chair."

The plate being put on, Joshua responded to the singular welcome, bowing to the speechless woman — for she was wholly mute except to her niece — and also to the girl, who scarcely noticed his salutation. Yet there was an air of breeding about her that both puzzled and attracted the schoolmaster. What is bred in the bone will show in the hair.

Joshua was a scholar, and he knew that in King James's time many of the best blood of England had been sent to the colonies as bond people. He fancied he saw in the girl's face the lineaments of a beauty of the seventeenth century. And possibly there may have been other ancestors. Cube root had not entirely rooted out Joshua's sentimentality.

"Ask the stranger if he will have grease on his potatoes," said the silent woman, who even when she spoke had the air of speaking not, but of trying to swallow a pill.

"Have grease?" proffered the beauty in homespun, with quiet courtesy. Joshua doped his potatoes accordingly, and studied the problem before him. The man of the house seldom spoke. Once, with a rich pathos in his voice, he said to his niece: "Ask your aunt if she'll have more bacon," and the woman quietly passed her plate.

After the meal was concluded, Abel went to take care of his stock. Joshua followed him, but turned to help the girl, who was going to the spring for a bucket of water.

Like a schoolmaster, he plunged immediately into the problem. "What is this mystery of your uncle and aunt?" he asked. "Believe me, child, I do not ask in idle curiosity."

"Are you a revenue man?" asked the girl.

"No, I am not a revenue man," replied Joshua. "I am a schoolteacher. See, here is my certificate."

"Aunt is a hard-shell Baptist," replied the girl.

"But your uncle, child, your uncle, ——"

A night-owl flitted across their path with a hoarse "Hoo-Hoo." A whippoorwill piped mournfully from an adjacent tree. The frogs croaked dopily from the pool below, and again the night-owl called "Hoo-hoo."

"M'lissa!" called a voice from the house. "M'liss-ah!"

"Coming, aunt," responded the girl.

"Tell your uncle he'd better chop some wood."

And they walked slowly back to the house, Joshua carrying the bucket. The stars blinked at them from above, the owl called "Hoo-hoo" and the whippoorwill whipped aggressively, but Joshua was happy.

He had resolved to marry the pale-cheeked maiden of Tennessee. He would learn her history, win her consent, and take her with him to the little town where he had engaged to teach. He was satisfied that she was of good blood — the best — and her character shone in her face: truth, devotion and loyalty.

In the cabin the family reassembled, and Joshua told them something of his early life, not necessarily for publication, but as an evidence of good faith. But Abel was not communicative. Was this man a moonshiner? Joshua knew the code of these simple people and respected it; the code that said it is right to raise corn, and equally right to distil that corn and turn it into good liquor. It was a simple code, far simpler than the Thirty-nine Articles, but its supporters were as ready to suffer for it as were their ancestors of the seventeenth century.

The next morning Joshua would have taken his departure, but the sky was overcast, and soon the rain poured down in torrents.

"Better bide where you are, stranger," said the hospitable Abel, and Joshua thanked him and admitted he could do naught else. Abel employed himself in that never-failing occupation of rainy days, mending harness, and his wife silently took up those tasks which are woman's in fair weather and in foul.

Melissa asked Joshua to lend her a book; one that was easy to read.

"Indeed I will," he answered, "and I will help you to read and understand it." And he took Pilgrim's Progress from his saddle-bag.

"That's a powerful good book," she said, "I have read it through twice."

"Then you have read twice as many good books as some people who have been through college," said Joshua. "Tell me, child, was not your father a Cracker?"

"No, he waren't no Cracker, he ware a mountaineer," was the simple reply.

"Then I'll not marry you, my pretty maid," exclaimed Joshua, his powerful frame wriggling and twisting with pent-up emotion.

"Nobody axed you, sir," she said.

"'Axed?' Did you say 'axed'? That word reveals your origin. You are a Cracker by birth, and I shall marry you, after all, my pretty maid. Polly wants a cracker."

And they held hands together while the moon shone silently in at the window, and the night-owl called "Hoo-hoo," and the whippoorwill whipped in the big oak tree, and the frogs merrily croaked in the pond. The fog settled down, heavy with dope.

Abel was busy with his harness in the further corner of the room, and the silent woman in the next room sang "Gideon's Band."

"Tell me," said Joshua, fixing his dark eyes on the girl, "tell me why this curious couple are so silent. What is your uncle's vocation? I see he is not a farmer."

"Oh, they scrapped, that's all, and Aunt vowed she'd never speak to him again," said the girl.

"Perhaps she did him a good turn, after all," said

Joshua. "'Better a dinner of herbs——' A woman is either an angel, or she is the other thing."

"What am I?" The girl had perhaps never known the sound of a compliment, but she had a very natural hunger for one.

"You are an angel," said Joshua, and he spoke from his whole heart.

"No, no, I'm sure I'm not an angel. What is the other thing?"

But Joshua did not pursue the subject. "Tell me of your uncle," said he. "If a man is a farmer, the Almighty gives him plenty of work, but those that are not farmers are apt to get their work from another direction."

"And how is it with your work?" inquired the girl, with native shrewdness.

"I have not thought of that," replied the schoolmaster. "I'll get up an apothegm on that later."

"What is an apothegm?" asked M'lissa.

"An apothegm is a deep well of thought, curbed with words. It is a rift in the clouds, through which the stars shine."

"I do not understand your book talk," said the girl, rather petulantly.

"Did you ever boil maple sap, drop it on snow, and eat it?"

"Yes, I've done that all right," said the girl, with the relish of pleased recollection.

"Well, that's an apothegm," replied Joshua. "But now tell me of your uncle Abel."

"You're not a revenue officer?" M'lissa asked for the second time, in evident alarm.

"No, indeed I am not. If your uncle has a still he can keep still, and I'll keep still." Joshua did not care to get mixed up with a moonshine case.

"Then I'll tell you—— My uncle is——"

"What?" asked Joshua, fearing, he knew not what.

"A lightning-rod man!"

"He offers base coin to Jove!" said Joshua. "Let me take you away from this."

Mrs. Hickman came into the living-room. "Why, M'lissa!" she exclaimed, "I thought you had gone for the cows."

"Madam," said Joshua, rising, and taking Melissa by the hand; "This child is going with me. We are to be married."

"M'lissa," said the silent one, "tell your uncle. He'll be powerful sorry to have you go."

"M'lissa," replied Abel, "tell your aunt I'm as sorry as she is."

"Madam," said the schoolmaster, "you are a philosopher, though you are not aware of it. And you, Abel, are a Christian, though you don't know it. For you, madam, have learned that domestic difficulties are not bettered by chewing the rag, and you, Abel, have learned that the soft word that turneth away wrath is a better conductor of domestic lightning than no end of back talk. I have been sent by a wise Providence to take away your intermediary. Now join hands, and talk. Say 'Howdy.'"

Abel spoke first: "Howdy, Em."

Then Em: "Howdy, Abel."

"Now kiss each other, pretty, and what God hath joined together do not either of you try to pull asunder. There, I think I've done a little lightning-rod business on my own account, and I'll take this pretty insulator with me for my pains," said Joshua.

The two left the cabin, hand in hand, their spirits already made one and their faces toward the setting sun.

The hoot-owl had not left his eyrie, nor had the whip-poorwill tuned up his banjo. Even the frogs in the pool were still. But a dove called musically from the hill and a meadow-lark sounded a joyous note.

Still, the air felt dopey.

"Let us get to the river," said the girl, clinging to her mate.

"Yes, we will get to the river," said Joshua, pulling his led horse by the bridle, "the river that leads on to a broader and less dopey and woodchucky life."

TECHNICAL education which leaves out of consideration the building of character is of small profit to the pupil.



AN ACTIVE FRIEND.

It has been for some years my custom to try and secure you, every year, a new subscriber in order to show my appreciation of THE INLAND PRINTER. I feel that it is worth so much more to me than the subscription price that whatever I am able in your interest to do is, in a sense, a payment for value already received. May I further assure you of my sincere good will and best wishses for the success of a journal that is, in my opinion, one of the greatest educators in the typographic world.—*Tol. G. McGrew, Foreman, Journal-Democrat Press, Warrensburg, Missouri.*

"THE house divided against itself can not stand," so dissension between departments means a bad balance sheet.

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

A POCKET COMPANION for Linotype operators and machinists; price, $1. S. SANDISON, 318 W. 52d st., New York, N. Y.

COST OF PRINTING, by F. W. Baltes, presents a system of accounting which has been in successful operation for many years, is suitable for large or small printing-offices, and is a safeguard against errors, omissions or losses; its use makes it absolutely certain that no work can pass through the office without being charged, and its actual cost in all details shown; 74 pages, 6¾ by 10 inches, cloth, $1.50. THE INLAND PRINTER COMPANY, Chicago.

DRAWING FOR PRINTERS, a practical treatise on the art of designing and illustrating in connection with typography; containing complete instructions, fully illustrated, concerning the art of drawing, for the beginner as well as the more advanced student, by Ernest Knaufft, Editor of *The Art Student*, and Director of the Chautauqua Society of Fine Arts; 240 pages, cloth, $2 postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELECTROTYPING, a practical treatise on the art of electrotyping by the latest known methods, containing the historical review of the subject, full description of the tools and machinery required, and complete instructions for operating an electrotyping plant, by C. S. Partridge, Editor of "Electrotyping and Stereotyping" department of THE INLAND PRINTER; 150 pages, cloth, $1.50 postpaid. THE INLAND PRINTER COMPANY, Chicago.

HINTS ON IMPOSITION, a handbook for printers, by T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions; several chapters are devoted to "making" the margins; 96 pages, 4 by 6 inches, full leather, flexible, gold side stamp, $1. THE INLAND PRINTER COMPANY, Chicago.

PHOTOENGRAVING, by H. Jenkins, containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapters on dry-plate development and half-tone colorwork; no pains have been spared to make the work of utility, and all generalizing has been avoided; no theories have been advanced; profuse examples show the varied forms of engraving, the three-color process being very beautifully illustrated, with progressive proofs; blue silk cloth, gold embossed, revised edition, $2. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL FACTS FOR PRINTERS, by Lee A. Riley; just what its name indicates; compiled by a practical man, and said to be the most practical little book ever offered to the trade; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL GUIDE TO EMBOSSING, written by P. J. Lawlor, and published under the title "Embossing Made Easy"; we have had this book thoroughly revised and brought up to date, and added a chapter on cylinder press embossing; contains instructions for embossing by the various methods applicable to ordinary job presses, for making dies from various materials readily obtained by every printer; also for etching dies on zinc; there are cuts of the necessary tools, and a diagram showing the operation of the dies when put on the press; 75 cents. THE INLAND PRINTER COMPANY, Chicago.

PRESSWORK, a manual of practice for printing pressmen and pressroom apprentices, by William J. Kelly; the only complete and authentic work on the subject ever published; new and enlarged edition, containing much valuable information not in previous editions; full cloth, 140 pages, $1.50. THE INLAND PRINTER COMPANY, Chicago.

THE RUBAIYAT OF MIRZA MEM'N, published by Henry Olendorf Shepard, Chicago, is modeled on the Rubaiyat of Omar Khayyam; the delicate imagery of Old Omar has been preserved in this modern Rubaiyat, and there are new gems that give it high place in the estimation of competent critics; as a gift-book nothing is more appropriate; the binding is superb, the text is artistically set on white plate paper, the illustrations are half-tones from original paintings, hand-tooled; size of book, 7¾ by 9¾, art vellum cloth, combination white and purple or full purple, $1.50; edition de luxe, red or brown India ooze leather, $4; pocket edition, 3 by 5¾, 76 pages, bound in blue cloth, lettered in gold on front and back, complete in every way except the illustrations, with full explanatory notes and exhaustive index, 50 cents. THE INLAND PRINTER COMPANY, Chicago.

VEST-POCKET MANUAL OF PRINTING, a full and concise explanation of the technical points in the printing trade, for the use of the printer and his patrons; contains rules for punctuation and capitalization, style, marking proof, make-up of a book, sizes of books, sizes of the untrimmed leaf, number of words in a square inch, diagrams of imposition, and much other valuable information not always at hand when wanted; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

FOR SALE — A complete photoengraving plant, only one in town of 35,000, a *moneymaker;* cost $2,000, will sell for $500; best of reasons for selling; must be sold at once. L. A. CLARK, 107 E. Huerfano st., Colorado Springs, Colo.

FOR SALE — Complete newspaper and job plant in excellent condition, publishing daily 1,600 circulation, weekly 2,500, in growing city of 12,000 population; doing between $2,500 and $3,000 of business per month and steadily increasing; in splendid field to improve. For particulars, price and terms write C. A. McCOY, Lake Charles, La.

FOR SALE — Half-interest in a medium-sized job-printing plant in city in Manitoba, Canada; live and growing business, good connections, a snap; investigate. B 298.

FOR SALE — Up-to-date printing plant located in heart of down-town business section New York city; cylinder, Universal and Gordon presses; established business; unusual opportunity for capable man able to invest $1,000 or more. P. O. BOX 1462, New York, N. Y.

FOR SALE — Well-equipped job bindery, established 20 years; No. 3 O. A. Hickok ruling machine; fine cash business and can get more; this plant would make good starter for up-to-date job-printing office; will sell cheap on easy terms; owner has other business which he wishes to develop; will bear investigation. B 296.

JOB PLANT and business in rapidly growing Colorado city; high-grade patronage, established 12 years; owner cleared $2,400 last year and business can easily be doubled; splendid opportunity for practical printer; must seek lower altitude; price, $2,000. ELLIOTT LEE, Pueblo, Colo.

PROGRESSIVE PRINTING ESTABLISHMENT for sale in Canada's leading city; 4 cylinders, 6 Gordons, Monotype equipment; established 23 years; turnover doubled in last 2 years; high-class catalogue trade; price, $21,000 spot cash. B 314.

WANTED — A first-class practical man with $3,000 to $5,000 cash capital to buy stock and take management of a printing and blank-book concern doing good business; plant invoices about $10,000 and is located in one of the best towns in the West. B 326.

Publishing.

PUBLISH PERIODICALS receiving larger profits than plain printing can yield; I sell periodicals. EMERSON P. HARRIS, 254 Broadway, New York.

FOR SALE OR EXCHANGE.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

FOR SALE — Complete printing outfit; will sell at sacrifice; write. BOX 405, Fairbury, Ill.

FOR SALE — Mergenthaler Linotype single-matrix machine in good order, No. 530; sample slug sent; price, $1,250 cash, June 25. F. M. BARTON, Caxton bldg., Cleveland, Ohio.

FOR SALE — One Goss rotary web press, capacity 7,000 16-page, 14,000 4 or 8 page (11 by 15 inches) papers per hour, either electrotype or stereotype plates; stereotype outfit included, daily operation; sample paper sent; price, $1,250 cash as it stands; delivery June 25. F. M. BARTON, Caxton bldg., Cleveland, Ohio.

FOR SALE — Newspaper press and complete stereotyping outfit, job presses, and other paraphernalia to be closed out at reasonable prices; if interested, write for list and prices. AUBURN PUBLISHING COMPANY, Auburn, N. Y.

FOR SALE — One Simplex machine in good condition; also about 800 lbs. 8-point roman. CATHOLIC UNIVERSE PUB. CO., Cleveland, Ohio.

FOR SALE — Small electrotype plant complete, consisting of: 1 case shaving machine, 12-inch; 1 steam-heated wax kettle, 12-inch; 1 steam-heated wax table, 21 by 28; 1 case-filling table, 26 by 48; 1 molding press, 23 by 28; 1 blackleader, 18 by 24; 1 Eddy dynamo; 2 battery tanks, 20 by 20 by 48; 1 furnace, 20 by 26; 1 double leveling stand; 2 backing pans; 1 combined saw and trimmer; 1 rougher, 12 by 18; 1 jig saw and drill; 1 blower; 1 iron finishing plate, 18 by 24; 1 bearer mold; copper rods, cross rods, anodes, hooks, and a small miscellaneous lot of tools; all above, in first-class condition, will be sold either as a whole or in part, for about half cost, as we have no further use for them. DANBURY MEDICAL PRINTING COMPANY, Danbury, Conn.

FOR SALE — 7-column Hoe Washington hand press, $75; 10 by 15 job press, $50. JAS. G. RAUCH, Slatington, Pa.

GAS AND GASOLINE ENGINES that have been used and put in perfect condition; fully guaranteed. COLBORNE MFG. COMPANY, 35 Indiana st., Chicago.

Knife Grinders

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E—To stand on bench. Dry grinding only. 26-in. $50, 32-in. $55, 38-in. $60.
Style A—With iron stand. Wet or dry grinding. 26-in. $75, 32-in. $85, 38-in. $90, 44-in. $100, 54-in. $115, 60-in. $150. With water attachment, $10 extra.
Style C—Extra heavy. Wet and dry grinding. 54-in. $185, 60-in. $185, 75-in. $205, 90-in. $225.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N. Y.

FOR SALE OR EXCHANGE.

HARRIS CARD AND ENVELOPE PRESS for sale or exchange for bindery or printing machinery I can use. B 318.

HARRIS ROTARY PRESS, large size, prints stock up to 15 by 18 inches, normal running speed 6,500 impressions per hour, used but little, and in first-class condition, for sale at a bargain, and on reasonable terms. B 322.

LINOTYPE MAGAZINE, for sale at much less than Mergenthaler's price; first-class condition, in fact never used; for 11-point machine; reason for selling — we are using 12-point machines which it does not fit. LANING CO., Norwalk, Ohio.

PHOTOENGRAVERS' MACHINERY, cameras, screens, lenses, etc., for sale; write for list and prices. GRIP, LIMITED, Toronto, Ont.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with the Inland Printer Employment Exchange and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job-printers, 5; machinist-operators, 6; Linotype machinist, 1; Linotype operators, 4; superintendents and foremen, 11; all-round men, 8; bookbinders, 2; solicitor, 1; ad.-man, 1; compositor, 1; photoengravers, 3; artists, 2; pressmen, 11; proofreader, 1; editor, 1; electrotypers, 2; managers, 2. Registration fee, $1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

Composing-room.

ARTISTIC JOB-PRINTER AND FOREMAN, all-round country experience, after proving his worth, can, if he chooses, buy half-interest in leading long-established, prosperous news and job office; beautiful county seat of 4,500, northern Illinois; references, samples. B 305.

WANTED — Job compositor having knowledge of folding-box work to take position as working foreman in small composing-room working 10 hours per day; state salary and experience. R. ROBERTS, 156 Auburn ave., Buffalo, N. Y.

Engravers.

COPPERPLATE ENGRAVER to run plant on commission; good opportunity for right party. ALABAMA ENGRAVING CO., Birmingham, Ala.

WANTED — An all-round man to take charge of a well-equipped photo-engraving department; we have an excellent proposition to offer the right man; please give references and experience. THE MARIETTA REGISTER CO., Marietta, Ohio.

WANTED — first-class proofer in engraving establishment. B 216.

WANTED — Half-tone etcher; must be an expert workman; steady position to the right man; open shop. FREEMAN ENGRAVING CO., Minneapolis, Minn.

Foremen.

WANTED SUPERINTENDENT — Experienced and practical man; must know good display and high-grade booklet, catalogue and stone work thoroughly; write fully concerning ability, references, salary wanted, etc. MEYER-ROTIER PTG. CO., 114 Michigan st., Milwaukee.

Operators and Machinists.

WANTED — About the middle of June, Simplex operator of average ability for country office. CONSERVATIVE, Tipton, Iowa.

WANTED — Linotype operator for union book office; best of wages. B 38.

WANTED — Machinist-operator for double-deck Linotype; $19.50 per week. ASHEVILLE CITIZEN, Asheville, N. C.

Pressroom.

PRESSMAN — Working foreman, sober and reliable, experienced on colored label work; must understand the business thoroughly; best reference required; state salary; correspondence strictly confidential. THE NATIONAL LABEL CO., Cincinnati, Ohio.

WANTED — Experienced platen pressman, working foreman, union. PERKINS BROS. CO., Sioux City, Iowa.

WANTED — Foreman for pressroom operating 2 cylinders, 2 automatic, 9 jobbers and 4 creasing presses, working 10 hours per day; state salary and experience. R. ROBERTS, 156 Auburn ave., Buffalo, N. Y.

Salesmen.

WANTED — A salesman who has had experience in the selling of lithographing and printing; apply, stating experience and salary expected, to B 253.

Miscellaneous.

WANTED — One good all-round union printer; must be familiar with poster work; references required. THE HADLEY PRINTING & PAPER CO., Toledo, Ohio.

SITUATIONS WANTED.

DO YOU WANT HELP FOR ANY DEPARTMENT? The Inland Printer Employment Exchange has lists of available employees for all departments, which are furnished free of charge. The following are now listed with us, seeking employment: Pressmen, 24; bookbinders, 5; make-ups, 3; Linotype operators, 11; machinist-operators, 11; Linotype machinists, 2; Monotype operators, 2; all-round men, 6; advertising and business managers, 8; solicitor, 1; proofreaders, 6; photoengravers, 2; ad.-man, 1; compositors, 3; editors and reporters, 5; superintendents and foremen, 20; artists and cartoonists, 3; job-printers, 15; stonemen, 3; electrotypers and stereotypers, 2. Address THE INLAND PRINTER COMPANY, Chicago.

Composing Room.

COMPETENT JOB COMPOSING-ROOM FOREMAN desires situation; first-class output guaranteed; married, strictly temperate and reliable; at present employed; can furnish A-1 references. B 35.

FIRST-CLASS job-printer, capable of taking charge and laying out work; union; west of Mississippi river preferred. B 122.

JOB COMPOSITOR — First-class, practical, all-round man in composing-room; chance for advancement; Southern States preferred. B 313.

Foremen.

ALL-ROUND FOREMAN desires change; capable of taking entire charge of medium plant, thoroughly reliable, plenty experience and executive ability, can produce economically, estimate, read proof, handle stock; thoroughly qualified all-round printer in modern lines; prefer Eastern situation; desire time to work out notice; age 32. B 302.

EXPERIENCED FOREMAN — An all-round printer and pressman; served 20 years at the business from boy to manager; references. B 306.

SUPERINTENDENT OR FOREMAN — By all-round printer, 17 years' experience, good estimator, careful manager, good references, married, sober. B 304.

Operators and Machinists.

A HIGHLY COMPETENT, reliable, practical mechanic, machinist-operator and printer, a man of integrity and skill, who can bring plant to highest efficiency, will locate within suitable environments. B 279.

CAN MAKE a Linotype pay dividends; I want to come to Chicago; married, union, no liquor or tobacco. B 299.

LINOTYPE OPERATOR (German) of limited experience, graduate of Inland Printer Technical School, desires position; willing to accept apprenticeship until he reaches his speed; union. B 309.

LINOTYPE OPERATOR-MACHINIST, also good ad. and job man, wants situation in Middle West. B 244.

LINOTYPE OPERATOR, six years' experience, union, sober and steady, 5,000 per hour or better, employed, desires day newspaper work. B 312.

OPERATOR-MACHINIST desires day situation in small town, in one or two machine office, or will work as operator in larger office; 4,500 brevier, sober, married, union; 5 years' experience. B 293.

Pressroom.

A PRESSMAN seeks position in some country town, southerly direction preferred; thoroughly competent, familiar with all makes of presses and all classes of work; A-1 references. B 297.

CYLINDER AND PLATEN PRESSMAN desires situation; first class on half-tone and color work; married, temperate, reliable; references from past and present employers; results guaranteed. B 311.

POSITION WANTED by young, up-to-date half-tone and catalogue pressman, capable of taking charge; West preferred. B 215.

SITUATION WANTED by first-class half-tone cylinder pressman. B 175.

Miscellaneous.

EDITOR, capable man, wants position. H. W. PALMER, 75 Van Buren st., Passaic, N. J.

GENERALLY USEFUL MAN in printing-office (German), compositor, make-up, Linotype operator or stoneman, 18 years' experience, desires position; union. B 308.

PRINTS BRIGHT GOLD
(See Insert, April, 1905)

RIESSNER'S IMPERIAL GOLD INK
Not made for anything but Plated and Coated Stock.
Careful printers using this Gold Ink on Plated and Coated Stock can do work equal to Dry Bronzing. Printed specimens furnished on application.

Rich Gold, . . . $3.00 per lb.
Pale Gold, . . . 3.00 "
Copper, ... 3.00 "
Aluminum, . . 4.00 "

Put up in ½ and 1 pound tin cans.

T. RIESSNER
57 Gold Street, NEW YORK

WANTED TO PURCHASE.

WANTED — Circular screen, 200 lines, covering size 11 by 14; also grain screen, size 8 by 10 inches. B 86.

WILL BUY single-letter Linotype machines from publishers or printers who contemplate renewing plants with two-letter and more modern machines. M. A. J., 25 E. 14th st., New York city.

MISCELLANEOUS.

A COLD SIMPLEX STEREOTYPING OUTFIT, $17 and up, produces the finest book and job plates, and your type is not in danger of being ruined by heat; simpler, better, quicker, safer, easier on the type, and costs no more than papier-maché; also two engraving methods costing only $5 with materials, by which engraved plates are cast in stereo metal from drawings made on cardboard; "Ready-to-use" cold matrix sheets, $1. HENRY KAHRS, 240 E. 33d st., New York, N. Y.

A THREE-THOUSAND DOLLAR CROW, an original illustration that actually brought this amount of business, is shown in "The Herrick Cut Book" just out; it's brimful of snappy cuts and bright ideas that will set a business man to thinking and a thinking man to business; send 25 cents for it to-day. THE HERRICK PRESS, Art Dept., Fine Arts bldg., Chicago.

ANYBODY CAN MAKE CUTS with my simple transferring and etching process; nice cuts from prints, drawings, photos are easily and quickly made by the unskilled on common sheet zinc; price of process, $1; all material costs, at any drug store, about 75 cents. Circulars and specimens for stamp. THOS. M. DAY, Box I, Windfall, Ind.

IMPROVED THALER KEYBOARD — Made of metal; instructions in fingering; bell announces finished line; detachable copyholder; send for literature; price, $4. THALER KEYBOARD COMPANY, 453 "O" st., N. W., Washington, D. C. Agents in Chicago and New York: Inland Printer Co.; in New Orleans: Southern Agency, Mergenthaler Co., 332 Camp st., New Orleans, La.

MAKE FANS AND CALENDARS in your own printery; new idea, big profits; exclusive right in each town; send $1 for particulars and samples; $4 more when you accept; our references: any one here. ARMSTRONG PRINTERY, Walla Walla, Wash.

PRINTERS everywhere find the producing of imitation typewritten letters a most profitable side line. Ours is the leading circular letter firm in Chicago, printing millions of letters weekly on our platen and Harris presses. We make our own inks and typewriter ribbons, and guarantee perfect work in every way. Full instructions for operating the process furnished all users of our supplies. No apparatus of any kind required, and no royalties.
Prices: Ink for circular letter printing, per lb., any color, black, blue, green, purple, brown or red, per lb.....$2.50
Typewriter ribbons exactly matching, per dozen..... 4.00
Special prices to large users.
M. M. ROTHSCHILD, Circular Letter Specialist, 96 Fifth ave., Chicago.

SPECIALTIES FOR BRITISH MARKET — Wanted — specialties or patents (to be worked on royalty) for Great Britain by firm of wholesale manufacturing stationers and printers (of good standing) in England; write, giving full particulars and samples, to B 310.

STEWART'S EMBOSSING BOARD — Easy to use; hardens like iron; 6 by 9 inches; 3 for 30 cents, 7 for 50 cents, 12 for 80 cents, postpaid. THE INLAND PRINTER COMPANY, Chicago.



SPATULA CUT CATALOGUE (7th ed.). Thousands of beautiful and appropriate half-tone and line cuts for ads., booklets, etc. Over 100 pp., 9½ x 12½, 50c. (refunded on $2 order). **BEAUTY BOOK**—Full-page art pictures from photos of 60 of the most beautiful women in the world, 26c. Electros for sale. Both, 70c. Stamps taken.
SPATULA PUB. CO., 100 Sudbury Building, - - BOSTON, MASS.

"Roughing" for the Trade

We have put in a ROUGHING MACHINE, and should be pleased to fill orders from those desiring this class of work. Three-color half-tone pictures, gold bronze printing, and, in fact, high-grade work of any character, is much improved by giving it this stippled effect. All work given prompt attention. Prices on application. Correspondence invited.

THE HENRY O. SHEPARD COMPANY
120-130 Sherman Street, CHICAGO

Printers and Stationers Make **RUBBER STAMPS**
A PROFITABLE SIDE LINE. Profits large and demand increasing. Investigate. Complete outfits from $25.00 up. Write for catalogue.
PEARRE E. CROWL COMPANY, 3 E. GERMAN STREET, BALTIMORE, MD.

PRACTICAL TREATISE ON CUTTING *and* CREASING

By OSWALD MARGISON

Gives definite and detailed technical directions for the manufacture of folding boxes, including the making up of forms bending and shaping the rules, different patterns of boxes, preparation of blankets, presswork and finishing, together with rules for figuring stock and taking care of dies. Price, $2.50. Sent postpaid on receipt of price to any address.

HOBBS MANUFACTURING CO., Worcester, Mass., U. S. A.

SECONDHAND MOTORS

We carry a stock of 800 machines, all finished like new and fully guaranteed. All voltages, sizes and kinds. Write us to-day.

GUARANTEE ELECTRIC CO., Adams and Clinton Sts., Chicago

HIGGINS' VEGETABLE GLUE



A DENSE, strong, glue-like paste for sticking paper or cloth to wood, leather or glass; hence valuable in photo-engraving, electrotyping, printing, bookbinding and kindred trades. Should be used instead of animal glue, as it is clean and sweet-smelling, and is always ready for use without fussy preparation or waste. In 1, 2, 5 and 10 lb. cans, and in bulk.

CHAS. M. HIGGINS & CO., Mfrs.
NEW YORK — CHICAGO — LONDON
Main Office, 271 Ninth St. | **BROOKLYN, N.Y.**
Factory, 240-244 Eighth St. | **U. S. A.**

AGENTS Wanted for MACAULEY

Extension Gripper

Saves time and stock, prevents slurring. Indispensable for close-margin and solid-block work. Instantly adjusted. Does not interfere with bearers or roller tracks.

Extensions are seated in slot and do not project on two sides of gripper. Fingers are attachable and detachable from aperture at bottom of slot. Permits both grippers to fall uniformly and unrestrained.

Made to fit ⅛, ¼ or ½ presses.

Price, $3.50
Mailed, postpaid, on receipt of price.

Lister Manufacturing Co.
ALAMEDA, CAL.

Nearly 1000 Printers are using our

Gas or Gasoline Engines



It will pay you to send for our catalogue. State number and size of your presses and we will give full information.

BATES & EDMONDS MOTOR CO.
Department B **LANSING, MICHIGAN**
BARNHART BROS. & SPINDLER, Western Agents, CHICAGO, ILL.



LOOK! WIRE LOOPS

To Hang Up Catalogs or Pamphlets

The Universal Wire Loop

Is the cheapest and best device for "Stringing" Catalogs, Directories, Telephone Books, Prices Current, etc.

Look Better and Won't Break or Wear Out.

Let us send sample and quote you prices.

Successors to Universal Wire Loop Co.
PHONE M. 4813

WIRE LOOP MFG. CO.
75 SHELBY STREET
DETROIT . . . . . MICHIGAN



Quick one-screw regulation of ink flow.

A Fountain on Your Gordon Jobber

is just as necessary as a fountain on your cylinder, and who would think of running a cylinder without a fountain? If your jobber is producing only 7,000 to 9,000 impressions a day, with a NEW CENTURY it will produce from 12,000 to 15,000. Worth thinking about; and to think should be to act. The NEW CENTURY is built and patented by a printer who understands the pressman's requirement. It will do the work of a long fountain without any of its disadvantages.

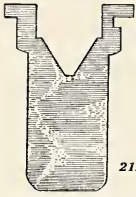
FOR ALL SIZES CHANDLER & PRICE, CHALLENGE, AND ALL GORDON PRESSES.

Get a descriptive circular from your dealer or from us. Always specify your presses.

The WAGNER MFG. CO., Scranton, Pa.

¶ We are using the New Century fountain manufactured by your company, on our Chandler & Price and Improved Gordon presses. We note particularly that the color on all jobs is easily kept uniform, and the product of both presses is very materially increased. We are well pleased with the New Century, and do not know another fountain that can be compared with it. "It is all to the good."

THE PEOPLES' PRINTING COMPANY
L. A. CLARK, Manager



Expert Spaceband Repairing

Send us your broken, rusty bands and we will refit and finish them as accurate and durable as though they were new.

Satisfaction guaranteed. Price, 30 cts. each.

SCHUYLER COMPANY

2129 Stuart St. - BERKELEY, CALIFORNIA.

Successors to Schuyler & White, of Los Angeles, California.

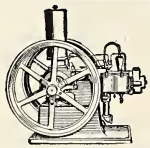
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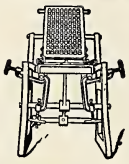
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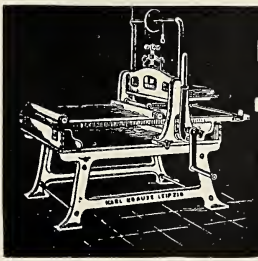
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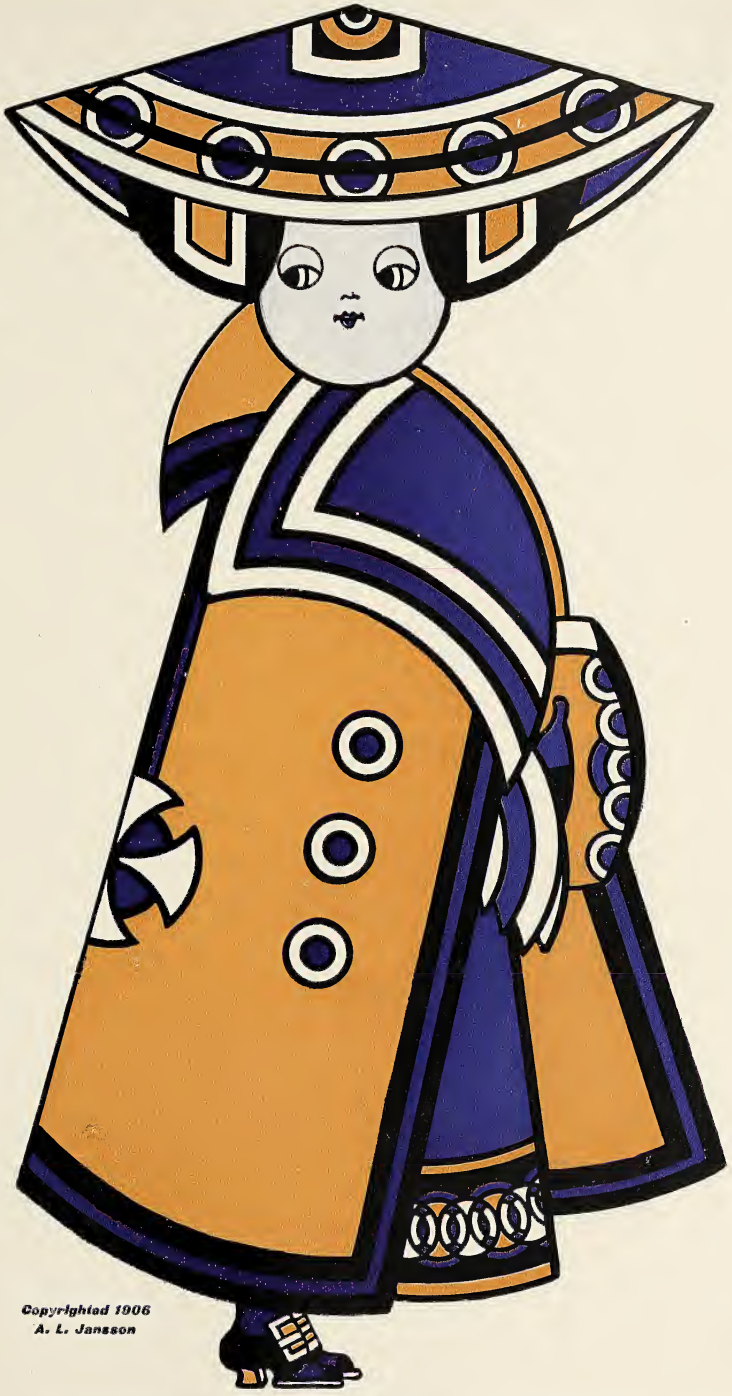
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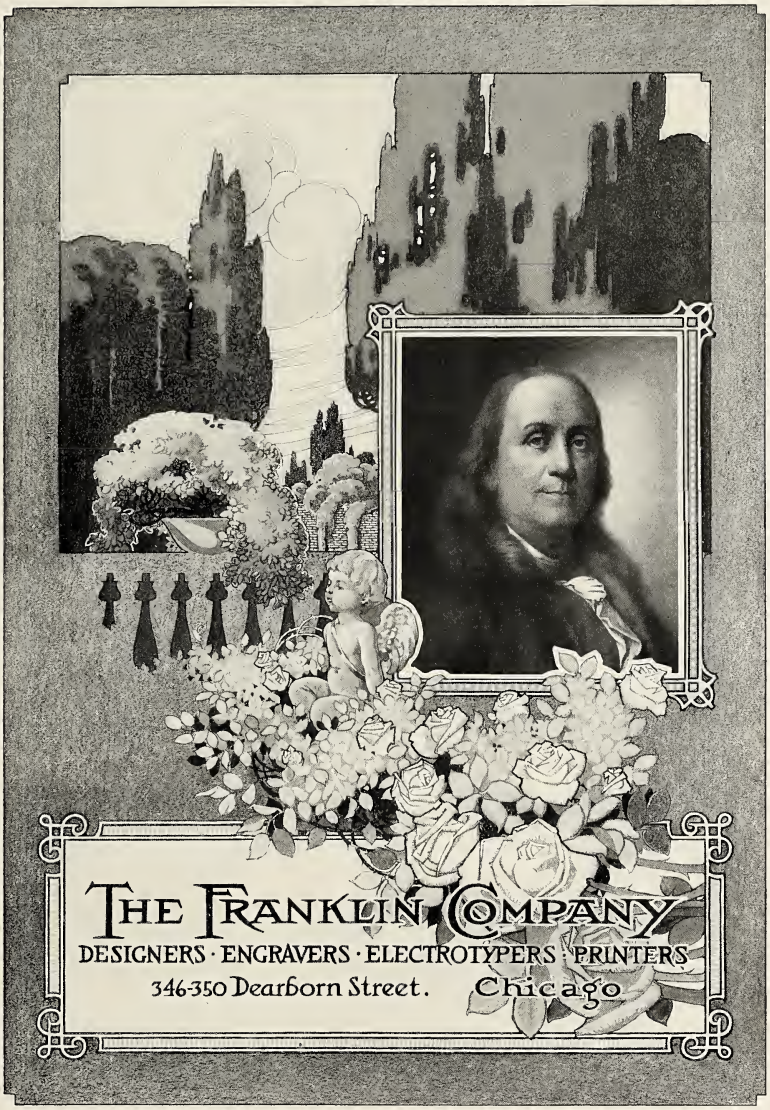
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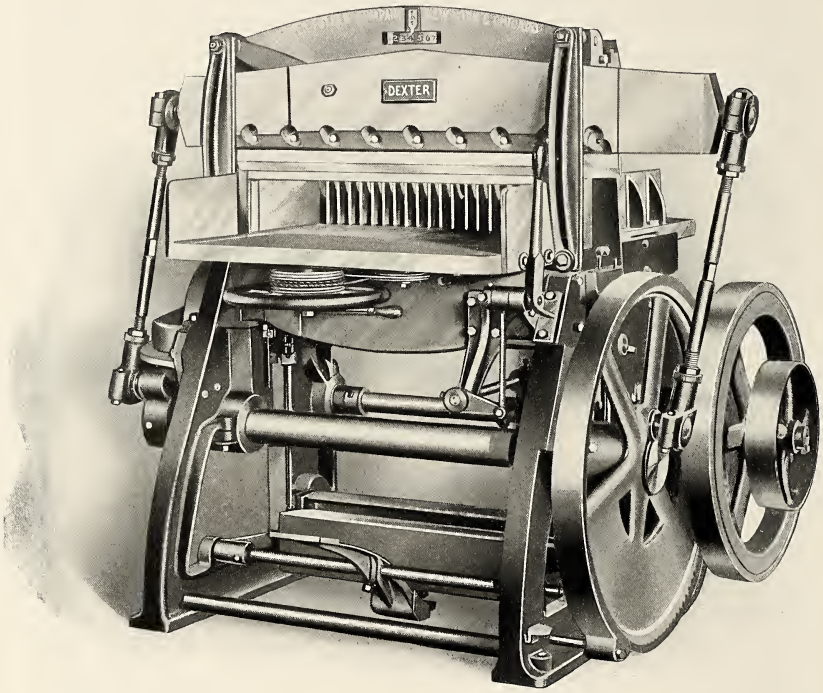
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June, 1906

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VOL. XXXVII. No. 3. JUNE, 1906 TERMS { $3.00 per year, in advance. Foreign, $3.85 per year.

PATENT OFFICE

UNISON.

BY FRED W. GAGE.*



NO, gentle reader, this is not to be a dissertation on "unionism," nor yet a panegyric on the benefits of "getting together," albeit this latter course is one that might, with benefit, be adopted by the disputants in our craft who still remain so at odds with one another.

Rather is it simply the retelling of an old story which has to do mainly with one of the troubles encountered in the modern pressroom, and a few suggestions in regard thereto which it is hoped may be of benefit.

In the old days of Adams presses it was a certainty that the impressional surfaces must come together with exactness, but even then there was more or less difficulty with "slurring," usually from a "baggy" sheet, and worse when running a form with more or less open spaces.

Nowadays, in spite of all the skill of the modern pressbuilder, it is still one of the trials of the pressman that "slurring," "guttering," or "dragging" are so often manifest. And perhaps no other one thing is so surely disastrous to good results, particularly in long runs. Even some of our best trade publications are not free from this radical blemish, which shows not only in the finished product, but leaves its balefully destructive mark on the mutely eloquent form of type or cuts. And it is in the hope of aiding the ofttimes perplexed pressman that these lines are written.

In common with other branches of our cherished art, cylinder presswork has in the past decade or two been almost revolutionized. The introduction of the half-tone and its accompanying necessity, enameled paper, has made of the pressman an artist, and it is his deft touch that can make or mar the best efforts of engraver and printer. He has found that the sensitive surfaces given him to work on and with are susceptible to even the one-thousandth of an inch variation in pressure.

In view of these facts it seems sometimes that there is, in the average pressroom, too little attention given to this important matter of unison in the travel of printing surfaces.

The pressbuilder knows full well the importance of this point, and it has demanded and received the skill and ingenuity of more than one inventor. As a result it may safely be said that in the majority of instances the trouble is with the pressman rather than the press, when the printed sheet shows the effects of a "scouring" impression.

To be sure, we must always recognize that even the most painstaking pressbuilder is to a degree handicapped by the nature of the materials of which he builds, so that the "absolutely unyielding impression" of which we were told in our younger days has met with the disillusionment that has befallen other nursery tales. But with the perfecting of modern machine-shop tools and methods has come the production of presses of great power and rigidity, with various improvements and additions, particularly as to bed motions, and all having in view this one great object — the unison of the printing surfaces.

Indeed, one prominent machine trusts not to the well-nigh universal "rack and segment" to

* President, Gage Printing Company, Battle Creek, Michigan.

bring and keep bed and cylinder together during the printing stroke, but rejoices in a continuous rack and corresponding gear, the whole length of the printing surface. In some respects this is undoubtedly an improvement, although it can be readily seen that with an overpacked cylinder this style of construction can make a formidable grinding machine of such a press, with results proportionately more serious than on a similarly overpacked press of the other type of construction.

For unquestionably the chief cause of "ground off" and blackened edges is the overpacking of cylinders, which so increases their diameter as to give a surface traveling materially faster than the bed. Manifestations of this same evil are found also in the type being driven "off its feet," Linotype slugs tipped over, tympan dragged or broken away from its clamps, etc.

Oftentimes a whole day's careful "make-ready" is ruined, or perchance the first few thousand impressions are hardly off before blackened edges on half-tone or type give warning that something is wrong. If the work in hand is of a high grade, this may mean the lifting of a form, or the hurried making and substitution of fresh plates on the worst worn edges, while who of us has not observed the sickening result of an attempt to soften the impression on an edge already beginning to blacken and showing undue wear.

The modern rotary machines, from the complicated color presses down to the smallest Harris, as their operators quickly learn, will fiercely resent change in the circumference of their printing cylinders, by even the thickness of one sheet of paper. But it seems difficult for the ordinary pressman, working on the latest and most improved two-revolution machine, to realize that there is the same necessity for keeping the impressional surfaces traveling exactly together, even though but one of these surfaces be curved. Now let us examine into the mechanics of the case.

Every pressman of any experience has found that the ordinary type form is a "snap" to print as compared with a form of half-tones, and this is largely due to the greater printing pressure necessary to print the half-tone. And right here is where so many go wrong by assuming that when they have made the form fully type high, the necessary "squeeze" must be secured by adding sheet after sheet to the cylinder packing.

Probably the press erector is in some degree responsible for this error, for it has been the experience of more than one pressman that the erector did not set the cylinder down as hard as half-tone printing makes necessary. A new machine is usually tested as to levelness of impression by a type form, but when its powers are tried by the enormously increased impressional demands of a half-tone form, that pressman is wisest who quickest appreciates that a resetting of the cylinder may first be necessary.

For try as they may, the pressbuilders can not give us "unyielding" impressional powers, and the better way to meet the situation is to recognize the natural limitations of iron and steel and solve the resulting problems intelligently.

"But," says the young pressman, "how can I know when I have the cylinder of my press rightly packed?" It is a simple matter to determine and has often been explained to enquirers. Take an accurate straight-edge of sufficient length to reach from outside to outside of the bearers on your cylinder, and after your form is made ready lay the straight-edge along the printing surface and see if the tympan raises the straight-edge above the bearers on either side. If it does, the cylinder is overpacked and trouble is in sight.

That "once well done is twice done" is particularly applicable to the various details of make-ready, no experienced pressman will deny for a moment, and while the bringing of the form to "type high" is certainly one of the fundamentals, the correct packing and setting of the cylinder are of equal importance.

To be sure there are in comparatively rare instances other causes for scoured edges, but as a rule if the bearers be kept type high and level (watch for hollow spots from previous wear) and the register rack and segment correctly adjusted, even on an old machine with well worn gears, clean, sharp printing with no grinding of the form may be a certainty, provided the cylinder be properly set so as to be neither under nor over packed.

The writer remembers one apparently inexplicable instance of "guttering" where after some days of wasted experimenting it was discovered that the "set" of the register rack was such as to pull the bed ahead of its driving gear at the beginning of the printing stroke, the "catching up" process taking place at the first open margin. Again all the trouble was due to an unsuspected loose key in the cylinder driving gear (this kept all the experts guessing for weeks), while the slight "give" of the loosely locked form has been detected as the seat of another's trouble.

A frequently unsuspected reason for blackened edges is warped blocking under plates, or worse, heavy underlays put under the centers of blocks, either condition causing the plate to rock more or less, absolutely preventing clear printing. Underlays should as far as possible be put between the plate and its supporting block.

But before looking for obscure causes of trouble, be sure as to the "set" and packing of your cylinder.

Written for The Inland Printer.

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BY A. HUGHMARK.

NO. XV.— JOB BINDING (CONTINUED).

BANDING of book backs is not now a necessity as it was when books had to be sewn on extending cords; these then being real bands under a tight back. To-day the false bands glued onto a loose back are merely for decorative purposes. The plainness of the otherwise flat looking back is thereby broken up into divisions or panels enabling the finisher to present creditable work with little ornamentation, outside of lettering in the title and volume number, if any. Bands can be put on in many ways by dividing off the back with the dividers into five, six or seven panels; seven is, however, used only on large books. The divisions are made from head to tail, leaving the latter somewhat larger than the others. For odd books, a band put very close to each end of the back and a third placed far enough below the first one to form a lettering panel for the title (Fig. 1) will leave a large portion of the back unobstructed for the finisher, in which he can use a small fillet roll and some small tools to advantage in constructing a pleasing design. Soft twine of four, five and six cord thickness, according to the size of the book, is preferable to either leather strips or strawboards for banding material. When well pasted and rolled and then laid across the back, it will stick sufficiently to stay in place while forwarding and still be movable with bandstick or nippers after the leather has been stretched over. While banding, the forwarder may think that he has put the bands on straight and yet when he has the back in leather he may discover that he was mistaken. The leather back should be cut wide enough to extend over on the covers on each side one-third of their width. The corners appearing triangular after being turned in should have equal length of sides compared to the width of the leather that is shown on the boards from the joint. The back should be well pared down on the sides and ends, but neither the ends of the back nor the short side of the leather corner should be pared so thin as to impair the strength of the turns. A machine (Fig. 2) does better paring than can be done by hand; it does not work well on very soft leathers.

After the leather has been pared, it is sponged



THE SIMPLE LIFE. Plate by The Inland-Walton Engraving Company.

However, if one designs to construct a dwelling-house . . . consider first how slight a shelter is absolutely necessary.— *Thoreau.*

on both sides before pasting. The paste should be thick, but no more should be applied than is necessary. The back is drawn over, but many make the mistake of *stretching* it so tight across the back that the strength is greatly reduced in the joints. As the leather dries it shrinks, and this makes the matter still worse. When turning in the ends, the

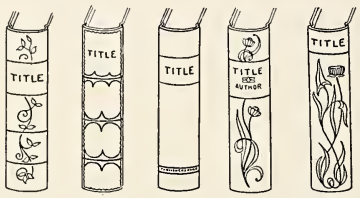


Fig. 1.

forwarder grasps the end of the book with the three last fingers of the left hand, letting both covers drop down flat on the bench, and with the left thumb and index finger he pushes the end of the loose back away from the book at the extreme end only. This makes an opening so that the

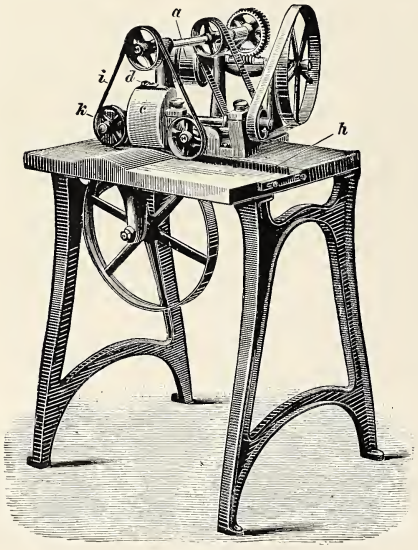


Fig. 2.

leather can be turned in smooth and in a straight line. It is then pulled out a trifle so a head can be set equal to the thickness of the board in the cover. When both ends have been treated in this manner, the book is laid on one side and the cover opened horizontally and then each end of this cover is drawn up from the book a little and the turn drawn smooth. This should be done to prevent the ends of the joints from being so tight as to strain after the leather is dry. The next operation is to rub up the bands; this can be done with the edge of a folder, with a grooved bandstick or with a pair of band nippers. A No. 16 three-cord thread is then tied around the joints so as to force the leather in to a small V shape at the end of each joint. The book is then set on end closed on the paring stone, and with the folder the operator works around the back until it is smooth, showing no lumps where the leather is doubled, leaving clean edges and sharp, flat heads. A book that has a hump on each end of its back and with heads curved in undulated lines from cover to cover, or

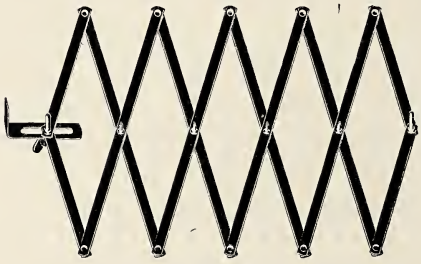


Fig. 3.

bending toward the edge with a rounding, can never be a pleasing sight on the shelf. It is just as distasteful to find straining or bulging joints when opening a book as it is to read a side-stitched magazine. Therefore the covers should be opened up before the leather is thoroughly dry and laid open horizontally as before. A folder should then be pressed, flat side down, against the cover over the joint between the turns only. While this is done the cover should be forced toward the book with the left hand. If this does not leave a straight and free joint, then most of the leather turn that would be covered up with the paste-up leaf should be cut away. After this, time should be given to dry completely before siding up or pasting up. The corners can be put on any time before or after the back. It should be remembered that driers must always be inserted between the book and its covers while the leather is damp. Pieces or strips of thin boards should be laid under the string when tying up the joints, as otherwise marks would be impressed in the leather from the thread. All sides should be put on with glue. The overlapping of the sides should have the corners cut in straight from the edge of the boards, instead of slanting, as is oftener the case. The pasting up concludes the forwarding of the book, although many consider this part of the finishing. If the book has a cloth or leather joint,

this is pasted up and allowed time to dry before the lining is pasted on. In each instance (special joint or plain endpaper), the process is the same. The cover is thrown back, the joint cleaned out, the cover pressed down once more and the waste leaf torn away. After the joint or end-paper has been pasted, it is lifted up onto the cover and then rubbed into the joint of the back. The fingers must be the tools for this work. Where there is more than one book, they are opened up in rows along the bench and all pasted, after which the first one that was pasted will be just right for lining up. This one side is left open to dry before the other side is pasted up. When closing — this should be done before quite dry — a strawboard drier should be inserted. The same procedure should be repeated for the second side. After the driers have been put in on both sides, the book or books can be laid between pulp boards and then laid into the standing press with an additional pressing board between each. The press should be turned down so as to bring but little pressure on the books. One hand on the spider without the bar or pin will be enough. The full leather book is handled in a similar manner. When stamped backs are used, these should be dampened around the edges only, or all around the paper lining that is attached to these backs.

Light colored calf or sheep books should be left to dry between clean white paper, soft print paper preferred.



NEAR HOT SPRINGS, ARKANSAS.

Plate by The Inland-Walton Engraving Company.

In the skies the sapphire blue
Now hath won its richest hue;
In the woods the breath of song
Night and day
Floats with leafy scent along —
Come away! — *Hemans.*

Law binding differs from job binding only in a few particulars which will be here pointed out. The boards are laced in on two cords only. Where the books are thick a piece of super is laid over the back between the lacing cord and the laps pushed in between joint and cover-board with the end of a folder. These laps are later pasted upon the boards with the end-sheet, thus reinforcing the paper joint. The loose back is of heavier paper and is just laid on and folded over once. The books in this case all being the same length, the papers are cut into proper lengths, requiring no cutting off at the ends after backs are in place.

The boards are lined up in sheets before the cutting. When stabbing, a marked wooden board is used, showing always the position where the holes are wanted. Several boards are stabbed at once. Pattern tin strips, the length of the backs, into which four tacks have been soldered into position where the bands are to be, are used to mark off with. These patterns have an angular bend at one end to insure uniformity in puncturing. An instrument known as the Hubograph (Fig. 3) is



Book with five bands and colored inlays on side and backbone.

useful for this kind of work. It can be set with a long or short head and can be changed to take any size by means of the two end-screws.

All the leather for a day's task of law books is wet by dipping each cover, after which it is put into a stack and all of it pasted off at one time. There may be from forty to sixty pieces, according to what stage the books are taken from. They are all drawn over before turning in. The corners are clipped off in an inverted V shape by bending the end and front laps together while cutting. When all are turned in, the heads are set by simply pushing the end of the book over the paring stone. For this work a bandstick is necessary. The bands are rubbed up on all the books at one time. The driers used must be pulp boards and cut to the same size as the book so as not to project while handling. It is necessary to insert these as soon as the leather has been turned in on each book. Cleanliness is required during the forwarding, both on the bench and in person. The edges, which are left white, must be unspotted and the leather should be free from paste on the outside. The books have to be washed, but this wash, which is a solution of oxalic acid, should be weak and very little of it used at that, as it injures the leather. If the covers are full of paste daubs and dirt spots, it not only takes more time, but also more acid, which always has a deleterious effect on the leather. The pasting-up is done in long rows, after which the books are closed up and the second side laid up for pasting in similar manner. Driers are not used at this stage of the work. After the books have been pasted up, washed and burnt-rolled on the backs, and have the titles pasted on, they are put in press between planished zinc boards, joint outside, and pressed hard, the longer the better. They are then taken out and the sides impressed with a hot fillet frame in the stamping machine. They are then ready for inspection, to be wrapped, sealed and labeled.

Now a few words in regard to the selection of leather will be useful to those who have not had the opportunity to make personal observations. For durability, what is known as Niger morocco is the best; the coloring, too, is more permanent than in others. The Levant morocco is next best, Turkey, French and German moroccoes the most commonly used, but less desirable. Any of these last named leathers in dark green and chocolate brown will fade on the backs, leaving the sides of the original shade, if the books are standing in bookcases. The same trouble occurs with the seal and other grained cowhides or skivers. Tans, blues, reds and black seem to be the only colors that can stand the effects of light without fading. Textile bindings of these colors suffer in like manner. Aniline colored edges fade quickly where exposed to the sun, but if polished they keep very well.

(To be continued.)

THE EDITOR'S APPEAL.

"We regret to see," wrote the editor of the *You Bet Warbler*, "that while our readers believe us competent to settle the Chinese question, persuade Eastern capital to invest in Flapjack Gulch, give a sure cure for hollow-horn and tell Widow Jenkins's red-headed girl whether she is in love with Bud Jackson or that biled-shirted dude from the Forks — we regret to see that after all this our subscribers haven't enough confidence in our financial ability to occasionally entrust a few dollars to us. But if they don't overcome the said lack of confidence enough to let a few pesos roll our way, and that pretty pronto, our soul will have to take to roosting on Signal Butte for lack of a body to wear."—*N. M. Suydam, Martinez, Ariz.*

ACCORDING to Jack London, journalism is something printed in a newspaper and literature is something printed in a book. The error is quite common.—*Puck.*



Plate by The Inland-Walton Engraving Company.

GOING TO THE PASTURE.

Copyright, 1906, by Nace Brock, Asheville, North Carolina.

Written for The Inland Printer.

GOOD AND BAD EXPRESSION.

BY F. HORACE TEALL.



R. CHARLES A. DANA said, in one of his trenchant little paragraphs of verbal criticism in the New York *Sun*, "It is wonderful how much trouble writers will sometimes take to demonstrate their own ignorance and incompetence." This was and is true. It is more wonderful, though, how little trouble writers will sometimes take to demonstrate their own knowledge and competence.

Here is an unmistakable instance of the lack of taking trouble: Professors Greenough and Kittredge are the joint authors of a book about words upon which the press critics have bestowed only praise. Moreover, they are unquestionably worthy. Yet in their book, "Words and their Ways," on page 361, they say that "Our language has a great *quantity* of words and phrases in which the names of animals are figuratively used to describe human qualities." They have here used the word *quantity* erroneously. What they mean is a *number* of words and phrases, and "a large number" is better than "a great number," but "many words," etc., is preferable to any of the other locutions.

In order to secure reasonable discrimination in the use of words (of which the strict delimitation of quantity and number is a good example), a basis of distinction between various ways in which different word-uses become truly conventional must be established. In accepting as right any locution that is truly conventional we directly controvert the main point of the thoroughgoing purist. His dogma commonly prescribes, as the only possible justification for any vocable, in any connection, absolute conformity to some rule or rules, and often applies an insufficient test, through neglect or exclusion of more truly justifying circumstances. The mere fact of practical universality in usage he will not admit as entitling any expression to sanction. Such strict purism is reprehensible. Its worst effect, however, arises from its specious appeal to the people who accept the dictum of the first instructor whose ruling is presented to them. Many words and phrases that are unquestionably established in usage could never have been considered good if the growth of the language were controlled by the purists.

The basis of true discrimination is communicable only through rules, and these rhetoricians call canons. These canons are found in all good books on rhetoric, and are well stated in the Standard Dictionary.

The best discrimination in the use of words is not resultant from slavish acceptation of every dictum of any particular writer or teacher — even if the one chosen as authority be preëminently creditable.

Lindley Murray was a grammarian of the highest standing, yet Goold Brown showed incontrovertibly that in many matters his work was egregiously erroneous. Goold Brown's own work contains errors as bad as any of Murray's. What, for instance, could be more plainly wrong than Brown's assertion that *ignis-fatuus* is an English compound word, and that its plural is *ignis-fatuuses?* Yet this absurd statement has actually been copied in other text-books of grammar.

Such things can not be accepted merely because some one says them. But neither should such occasional blemishes militate against the usefulness of artistic grammar and rhetoric. It seems only fair to say that some warnings that have been uttered must have been too abrupt and startling for real usefulness, and a good example is this, from one of the recent text-books, of which one of the foremost professors of English in our universities is a joint author: "It is absurd always to 'talk like a book,' that is, to maintain in ordinary conversation the language appropriate to a speech or an elaborate essay." Here is a fact not correctly stated, because it is insufficiently told. The absurdity noted is actual, but not in the way or to the extent of possible or probable misunderstanding of the teaching. We may readily admit that ordinary conversation is not pleasant when a speaker shows effort to choose high-sounding words or labors over the selection of grammatical constructions. Even ordinary conversation, however, is more enjoyable when words are well chosen without apparent effort and used with no violation of grammatical accuracy.

An impression of strenuous effort or high-flying in choosing words is as absurd in a book as it is in speech — unless for a special purpose, as in character-portrayal, when it may be a truly artistic feature of the work. The "talk like a book" that is better avoided in speech is, under ordinary circumstances, bad talk for a book. Indisputable grammatical construction is never absurd, and never displeasing, either in a book or in fluent speech.

The same professor of English, in a magazine article, emphasizes the fact that correctness in use of language is largely a matter of conventionality, and adduces, in proof thereof, an etymological reduction of an every-day phrase to its lowest terms — that is, a statement of the earliest source to which each word in the phrase can be traced. Using the literary primary meanings of these etymons, he says: "It would sound absurd to say, 'a clearing-up that has its foundation on a

straightened down-flowing'; yet we say 'arguments founded on correct derivation,' without a tremor, merely because our language has forgotten the figurative character of the words, and employs them as conventional signs for plain prosaic ideas."

Such a teaching is specious, but evidently fallacious, arising from inadequate consideration. It is not hard to find good reason for thinking that such words are not simply "conventional signs for plain prosaic ideas," as is shown in an essay, written by the author's father, Francis A. Teall, A.M., whose philological and lexicographic attainments commanded the highest respect of the many eminent scholars who knew him.

"Speculation about words and their uses is a favorite employment of many writers; but their exercitations seem to have a fatal facility for lapsing into dogmatic crudity or narrowness of view. A striking evidence of this tendency is afforded by the following paragraph, quoted in a book on rhetoric as from Professor Bain's Rhetoric (Part I., Chapter i.), a work which takes high rank as an authority: 'Our language has many combinations of words, indifferent as regards the metaphor, but fixed by us, and therefore not to be departed from. We say "use or employ means" and "take steps," but not *use steps*. One may *acquire* knowledge, *take* degrees, *contract* habits, *lay up* treasure, *obtain* rewards, *win* prizes, *gain* celebrity, *arrive at* honors, *conduct* affairs, *espouse* a side, *interpose* authority, *pursue* a course, *turn to* account, *serve* for a warning, *bear* no malice, *profess* principles, *cultivate* acquaintance, *pass over* in silence: all of which expressions owe their suitability, not to the original sense of the words, but to the established usages of the language.'

"The principle here set forth would make English speech (and by necessary inference all speech) a mere hodgepodge of accidental 'combinations of words,' regardless of their special fitness for their specific uses; but that is surely not the way language grows. In all spheres of activity the best possible adaptation of means to ends is the chief desideratum; and it would be strange if language were the only exception to this otherwise universal rule. It is not, however. 'The established usages of the language' have not grown up, like weeds in a waste field, at the will of the winds. There is a genius of language, under the guidance of which the thoughts of any people clothe themselves in words conformable to its racial idiosyncrasies and stage of development. In the process of growth one form after another is used, and thrown aside for a better or more expressive term, when one is struck out by superior intellect or fortunate chance and is generally accepted as an improvement; the effort being always to fix finally or provisionally upon that which fits most clearly or most agreeably to current habits of thought the particular use to which it is applied. This process is a never-ending one, and is constantly going on under our very eyes, to the great discontent of those who would have language a fixed quantity, stereotyped in the forms that commend themselves to their individual judgment or prejudices. It is not an arbitrary one, but has been, from the earliest times, the work of thousands of inventors, or 'makers' (poets), guided either by happy inspiration or painstaking search. Thus every metaphorical expression, as well as every literal one, that does not consist of a mere name and its bald adjuncts, is the result of an intellectual evolution comparable to that which goes to the elaboration of the principles of an exact science."



ADIEU!

Written for The Inland Printer.

MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

No. IV.— BY PHILIP ZACE.

AFTER the first-fold rollers are properly set it is very seldom necessary to change them. Be sure that the top rods are tight, as they may work loose while running. When the rods rest on the sheet they are liable to mar the half-tone printings or crease the paper. Careful attention is required here.

In running work that is not perfectly dry, ink is apt to accumulate on the drum roller. This will cause streaks or an apparent offset in the printed sheet. It may also cause the sheet to buckle at the first fold. Wipe the drum roller with a rag saturated with benzin and keep it clean at all times.

After the machine is extended to whatever size sheet you intend to fold, the rods and tapes should be set to cover the full range of the paper. Outside rods and tapes should come up to within one-half inch of the edge of the sheet. If they are too far away from the edge of the paper, the corners of the sheet are liable to sag down and buckle or turn over near the first-fold stop. The top rods should be moved up in line with the tapes. There is a series of adjustable needles in the first-fold knife to keep the paper from slipping as the knife is on its downward stroke. When the knife reaches its maximum depth between the rollers it hesitates for a fraction of a second before it is withdrawn, but the sheet travels continuously. The needles extend about one-fourth inch beyond the edge of the blade. When the needles are down too far they usually catch in and tear the paper as it is traveling through, or they may merely make a scratch across the type and half-tones. The operator should try all the screws which hold the needles in the blade, as they frequently work loose. Adjust the needles into proper position and if the above trouble occurs frequently it will be better to place small strips of paper between the needles and the knife to keep them from slipping.

A bent tooth in the first folder blade often tears the paper and prevents it from going through properly. Examine the teeth carefully and straighten them when necessary.

When the fold rollers pinch the sheet too tightly on one end they usually throw the sheet out of register. Run a sheet in slowly, stop the machine and pull the paper backward with the



Photo by Eugene J. Hall. "CHAMPION OF THE WORLD." Plate by The Inland-Walton Engraving Company.

hands. If one end of the rollers is set too tight, loosen the set-screws on the side of the rollers. There is one of these screws on every set of rollers. The operator must exercise care in setting these rollers in reference to the plunger mechanism on the packing box. If they are set too tight, they will strike the plunger and clog the packing box.

The parallel fold is a hard fold to work up to the stop, because the tapes do not carry the sheet the entire length of its course. An extra set of idlers should be attached to one of the rods under the sheet to press against the rollers, and to operate in conjunction with the idlers on the top rod



Photo by Eugene J. Hall. PALADIN. Plate by The Inland-Walton Engraving Company.

(previously described). The sheet passes between them and it is thus kept in proper motion until it arrives at the stop. Folder operators too frequently fail to use a sufficient number of idlers in folding parallel work and this accounts for the annoyance of sheets sticking to the top and bottom rods.

The head and side perforators require careful attention. It must be understood that this mechanism previously described is fastened on brackets — one perforator under the first-fold roller and another under the second-fold roller. In four-fold work both perforators must be set up to engage the grooves in the rollers and high enough against the roller to allow the clutch on the side of the perforator wheel to turn the same as the fold roller. Run the sheet through at the regular speed and then examine the folded signature. If the perforation causes the fold to extend over one side and out of register, the trouble will be found in the first folder blade, which may not be set low enough. The grooves which hold the bolts that fasten the first folder blade to the arm should be slotted, to permit of raising or lowering the blade when folding and perforating. The second folder blade should be slotted in like manner. The first-fold roller, in conjunction with the perforator, cuts the third-fold heads, and the second-fold roller cuts the fourth-fold heads. As the sheet is going through the perforator it may swing one way or the other. This invariably results in an imperfect third fold, as the blade will crease the paper at the point of least resistance. If the second fold laps the paper out on the side, the first folder knife must be lowered; if it folds short of the edge, the blade must be raised. If the folding is inconsistent, put a little glycerin on the tapes and they will hold the sheets more firmly. Because the perforating of the third-fold heads is done when the sheet receives its first fold, it is plainly

seen that it will be more difficult to keep the succeeding folds true. The perforated paper will not travel as accurately as a smooth sheet. For this reason, it is necessary to be very exact in making the adjustment of the perforator wheels. If they cut the heads too deeply, the perforator wheels should be lowered with the assistance of the nut and bolt on the perforator bracket.

The tapes should be sewed with No. 30 thread, waxed, the same as is used for blank-book work. Light thread is to be preferred, as the fold rollers are more liable to cut the seams when heavy thread is used. The tape should be trimmed square on both ends before it is joined together and the knot should be placed out of contact with the surface of the printed sheet. Patent metallic



Fig. 20.

tape fasteners may be used on newspaper folders, but they are impractical for use on machines that handle high-grade coated and enameled papers. Metallic fasteners are sure to mar the half-tones and scratch the enamel. In sewing tapes, the operator should use the stitch shown in Fig. 20. Commence in the middle of the tape, sew back and forth and finish at the starting point. The threads should cross each other between the two ends of the tape. The spear heads and dotted lines mark the second row of overlapping stitches. The tapes must be closer together than shown in drawing.

(To be continued.)

ROMAN CAPITALS FOR DISPLAY.

The unexpected always happens in a country newspaper and job office, and in many instances half-page and even page advertisements have been known to come in on the day before publication, after the regular weekly changes of advertisements had been made, which left the cases in a badly crippled condition, making it a serious question as to how the new advertisement was to be put into type. In many cases this state of affairs can be avoided by the judicious use of roman capitals in bringing out certain lines of the underscored copy. Plain roman capitals are always legible, effective and neat, and their use in many cases is preferable to job type. Many advertisements that have portions that suggest the use of the small sizes of job type can be set in roman caps. and they will stand out as sharply and effectively if the right ideas of proportion, white space and arrangement are carried out. There is always an abundance of roman in the average shop and an occasional advertisement set as suggested will greatly relieve the hard-worked job-faces and help to keep the cases well filled for the unexpected work that will demand their use.

OF UNQUESTIONED VALUE.

The Inland Printer is a magazine of unquestioned value to all printers, from apprentice to foreman.— *Ralph I. Moulton, Pittsfield, Maine.*

Written for The Inland Printer.

SPECIALTY PRINTING.

BY GEORGE SHERMAN.

NO. X.— COUPON AND TICKET PRINTING.

RAILROAD tickets, mileage books, street railway transfers, trading stamps, coupons or theater tickets may require serial lettering and numbering in duplicate or triplicate, vertical and horizontal perforation, scoring, and, in some cases, eyelet punching or stapling. As a rule, each ticket-printer has his own particular method of doing this work. Some have an equipment of special machinery for completing several processes at one operation; others use automatic presses, with auxiliary attachments, which deliver the finished product; and still others manage to produce the work economically with an ordinary job office equipment by utilizing clever methods of production.

The automatic press is admirably adapted to that class of work which requires printing in one or two colors, numbering in duplicate and perforating. Such a machine, with auxiliary attachments, is shown in Fig. 1. It consists of an impression cylinder (C), a plate cylinder (B), a numbering-head cylinder, with five discs (E), and a perforator, located near the point H. The num-

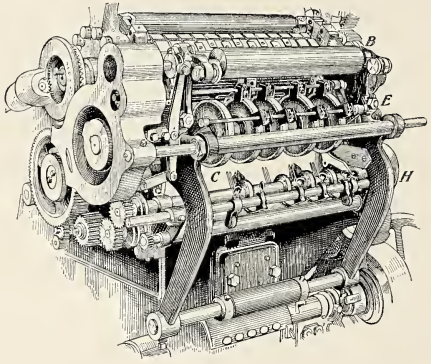


Fig. 1.

bering heads and the plate cylinder print on the same impression cylinder. The sheet is then carried by the tapes between a series of rollers which may be converted into male and female perforations, scoring or slitting wheels. These wheels may be adjusted any distance above one inch apart. If it is necessary to slit, score or perforate horizontally across the vertical perforations, the sheet is carried by tapes and turned at right angles to its previous course and passed between a second

set of perforators. Any quantity of numbering heads may be carried, up to the full capacity of the form. They may be arranged to print anywhere on the sheet, provided they do not approach each other closer than one and one-half inches. Fig. 2 shows the method of attaching the numbering heads to the auxiliary cylinder. In case the automatic feeder fails to feed a sheet properly a trip will stop the machine, and thus it is almost impossible to make an error in numbering. The perforators are of the standard male and female rotary type. Any number of them may be used so long as they are placed no less than one inch apart.

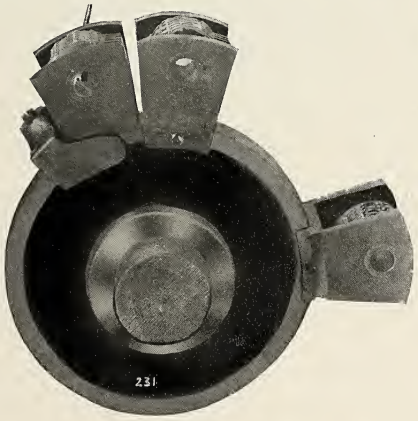


Fig. 2.

Ticket-printers who are using this machine can perforate, score and slit (down and across), number and print five thousand 15 by 18 inch sheets per hour.

The printer who is not equipped with special appliances, or who is unfamiliar with the best methods of producing the above class of work, will be unable to compete with the specialist. The main difficulty and the chief cost in producing all work which requires intricate numbering and serial lettering is in the number of changes required and the delays caused thereby. The presswork or the number of impressions required are rather a secondary consideration. While the country printer can not hope to meet the prices of the large ticket-printer who is equipped with special machinery, yet he may be able to retain a large share of the local work by using the most economical methods of production.

The theater ticket is one of the most difficult problems among this class of work. The numbering and serial lettering are usually of the most intricate character. It is impossible to construct special automatic machinery that will adapt itself to every requirement. No two floor plans are exactly alike. There is a difference in both the number and the lengths of the rows of seats. Every house contains its series of long and short rows, which necessitates consecutive numbering up to some arbitrary figure. Then the numbering device must be reversed to figure 1, and this

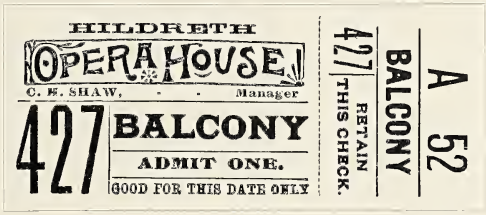


Fig. 3.

process must be repeated a hundred times or more to complete a single set of tickets for a one-night stand. At the same time it will be necessary to make changes, at irregular intervals, in the serial letters which indicate the rows, and the sections and date will require alteration in like manner. Years ago this work was done almost entirely with interchangeable rubber stamps. But this method

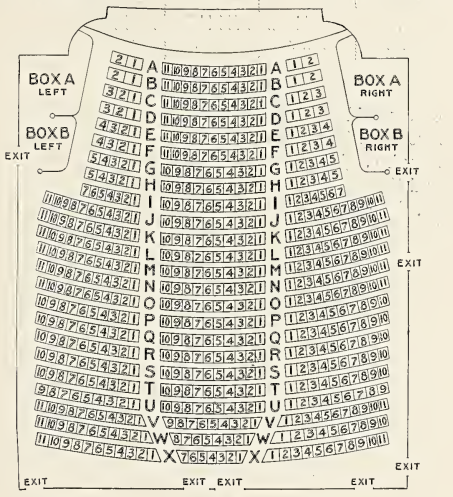


Fig. 4.

is slow — too slow for the rapid pace of this "automatic" period. The largest theater ticket printing-house in the country has an equipment of machines with specially constructed automatic numbering heads. All of these were built to order to handle this particular class of work. The tickets are printed from electrotypes and the paper is fed to the machine in a continuous web. It requires an operator and two or three attendants.

It is the duty of these attendants to watch the numbering heads and reverse their mechanism at the proper intervals. This work is usually done by girls, guided by the diagrams before them.



Fig. 5.

The entire process requires accurate and rapid manipulation.

Fig. 3 shows a style of theater tickets now produced by a large Chicago house. The numbering and printing require two distinct operations. The main portion of the ticket and the unnumbered part of the stub are printed from a set of electrotypes, ten or more on, at one impression. The numbering and serial lettering is done afterward on a rapid paging machine. These machines are also supplied with special numbering heads, which may be adjusted to print up to any desired figure and then repeat. The serial lettering is done with special letter wheels, also carried by the numbering head. A set of tickets for a house in which the rows are of uniform length may be numbered automatically by this method. If the rows are of various lengths it is necessary to reverse the numbering wheels by hand at irregular intervals. The cost of a set of tickets, to a house with not more than one thousand reserved seats, ranges from 40 to 80 cents, according to the character of the numbering. There is a good profit in the work, even at this price. Twenty years ago the cost of a similar set of tickets ranged from five to eight dollars. Numbered tickets were seldom used on this account. Managers preferred to insert the figures with a pen, when necessary.

Managers of the two or three theaters in a small city usually prefer to have their printing done in a local shop, rather than bear with the inconvenience and delay of a mail-order business. The local printer is not compelled to meet the very lowest figures of the theater ticket specialist in some distant city. If he can secure all the ticket printing required by these two or three houses it will profit him to add a few necessary materials to enable him to produce the work cheaply and with facility. A few typographic numbering machines, together with a practical method of production, will help him to do the work quickly and at a reasonable price. An illustration of the method employed by a printer who is handling this class of work in a small way will be of value in this connection. This printer is furnishing tickets for four houses, each of which averages about fifteen performances a month. For example, let us presume that he receives an order for six sets of reserved seat tickets. The diagram of the main floor of the house is shown in Fig. 4. The seating capacity of this part of the house is 626. That means 3,756 tickets to complete the order. The printer has a stock of electrotypes for the main portion of the tickets of each house (Fig. 5), including the words "Retain this check," on the stub. These electros are trimmed close to the bottom cross-rule, so that the name of the attraction may be supplied in type. The stock is cut double, so that ten tickets may be printed at one time and turned on the same sheet, thus making

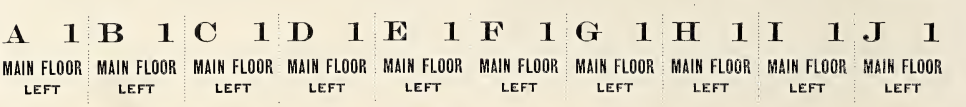


Fig. 6.

twenty single tickets. The above order will require 188 of these large sheets. About twenty extra sheets should be added for purposes which will be explained later on. This will make about thirty-five sheets for each set. A row of ten electrotypes, including the opening date on the stub, is locked in a Gordon chase, and this form is worked and turned on thirty-five sheets of the stock. Five "lifts" are required to complete the first impression for the six sets, and to make the changes in the date figures. A small box of figures



Fig. 7.

is at the disposal of the feeder for this purpose. The entire delay in making the changes will consume about ten minutes. If the work is in a hurry the numbering should be done on another press. A diagram of the numbering form is shown in Fig. 6. "Main Floor — Left" consists of a continuous strip of ten, unmounted. This narrow electro is hooked on each end to a patent base, so that it may be removed without unlocking or lifting the form from the press. Similar electrotyped

strips, containing the words "Main Floor — Center," "Main Floor — Right," "Balcony," etc., are kept on hand to replace other strips, whenever necessary. The numbering is done with a single-wheel typographic numbering machine, similar to sales-slip machines, which number from one to ten and repeat. The machines are locked to print on the blank end of the sheet, so as to register when the turn is made. This form will complete the first ten rows — left, center and right — by twice changing the electrotyped strips. The letters from A to J consist of a similar strip, hooked in like manner. This strip is now replaced with another containing the letters from K to T. When there are but a few rows in which the set numbers are less than ten, the useless tickets are cut out and thrown away, as the value of the stock would scarcely compensate for the time required in making the change. A sufficient quantity of short-sized stock is kept on hand for use when there are a great number of rows which average less than ten seats each. No change in the form is required in printing these short rows. A thin sheet of paper placed to the gage-pins prevents an offset on the tympan. Twenty-four rows of this diagram contain eleven seats. Therefore, twenty-four extra tickets will be required to complete the set. These are filled in with a rubber stamp, using the extra blank sheets for the purpose. Six complete sets of tickets have been completed in less than two hours by this method. The forms are always kept standing for this class of work. Undated tickets for an entire season can be printed with less trouble. The numbering and serial lettering of six sets of tickets is completed without lifting the form from the press.



Plate by The Inland-Walton Engraving Company. A SUMMER OUTING. Photo by Geo. A. Furneaux, Chicago.

Church envelopes frequently require both dating and consecutive numbering. This work is usually done with a combination of automatic numbering wheels and non-automatic dating wheels. Machines of this character are kept in stock by all manufacturers of typographic numbering machines. Five automatic wheels precede the dating attachment, and number from one up to 99,999, changing at each impression of the press. This machine is also fitted with an attachment so that the same number can be printed any number of times. The machine can be adjusted to do this without taking the form out of the press. Fig. 7 is a facsimile of an impression made by one of these machines.

(Concluded.)



THE BOAT RACE.

Soft blows the wind that breathes from that blue sky! — *Coleridge.*

Plate by The Inland-Walton Engraving Company.



(Entered at the Chicago Postoffice as second-class matter.)

A. H. McQUILKIN, EDITOR.

Editorial Contributors — ARTHUR K. TAYLOR, F. W. THOMAS, EDWIN B. DEWEY, W. B. PRESCOTT, R. C. MALLETTE.

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SUBSCRIPTION RATES.

One year, $3.00; six months, $1.50, payable always in advance. Sample copies, 30 cents; none free.

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Furnished on application. The value of THE INLAND PRINTER as an advertising medium is unquestioned. The character of the advertisements now in its columns, and the number of them, tell the whole story. Circulation considered, it is the cheapest trade journal in the United States to advertise in. Advertisements, to insure insertion in the issue of any month, should reach this office not later than the eighteenth of the month preceding.

In order to protect the interests of purchasers, advertisers of novelties, advertising devices, and all cash-with-order goods, are required to satisfy the management of this journal of their intention to honestly fulfil the offers in their advertisements, and to that end samples of the thing or things advertised must accompany the application for advertising space.

THE INLAND PRINTER reserves the right to reject any advertisement for cause.

Single copies may be obtained from all news-dealers and typefoundries throughout the United States and Canada, and subscriptions may be made through the same agencies.

Patrons will confer a favor by sending us the names of responsible newsdealers who do not keep it on sale.

FOREIGN AGENTS.

W. H. BEERS, 170 Edmund street, Birmingham, England.
W. C. HORNE & SONS (Limited), 5 Torrens street, City Road, London, E. C., England.
JOHN HADDON & Co., Bouverie House, Salisbury square, Fleet street, London, E. C., England.
RAITHBY, LAWRENCE & Co. (Limited), Queen street, Leicester, England.
RAITHBY, LAWRENCE & Co. (Limited), 1 Imperial buildings, Ludgate Circus, London, E. C., England.
PENROSE & Co., 109 Farringdon Road, London, E. C., England.
M. P. MCCOY, Phoenix place, Mount Pleasant, London, W. C., England.
WM. DAWSON & SONS, Cannon House, Breams buildings, London, E. C., England.
ALEX. COWAN & SONS (Limited), General Agents, Melbourne, Sydney and Adelaide, Australia.
COWAN & Co., Wellington, New Zealand.
F. T. WIMBLE & Co., 87 Clarence street, Sydney, N. S. W.
G. HEDELER, Nürnbergerstrasse 18, Leipsic, Germany.
H. CALMELS, 150 Boulevard du Montparnasse, Paris, France.
JOHN DICKINSON & Co. (Limited), Capetown and Johannesburg, South Africa.
A. OUDSHOORN, 179 rue de Paris, Charenton, France.
JEAN VAN OVERSTRAETEN, 8 rue Joseph Stevens, Bruxelles, Belgium.

EDITORIAL NOTES.

A PRINTORIAL Jeremiah opines that if the railroad-rate law becomes operative it will relieve the companies of the necessity of doing much printing. Does it mean "23" to the fat and profitable "tariffs?"

WHILE you are thinking about how you will invest your surplus this year, don't forget that keeping the machinery in prime condition and having an abundance of good material on hand will help to swell it.

WHAT do you think about oral orders? Have they ever made you trouble? Have they let you make others trouble? Do you give them? Do you take them? Can you give an example of a mix-up from them? Men are willing to take oath that they are right, then find that they are wrong because it was not in black and white.

HE is the wise apprentice who shirks nothing which comes his way, but rather invites difficult propositions. To make errors calling for correction is expected of a learner, his capacity being judged more by the thoroughness with which he learns his lesson than by the excellence of his first efforts on new work. When the apprentice develops into a journeyman he is expected to know how and not to experiment. Anxiety to tackle a new line of work on the part of a young artisan is synonymous with enterprise in the business world, and is always a desirable quality.

DAILY are we reminded of the necessity for and desirability of Care. There was a deplorable lack of system and exactness in the case of the publishing house of which inquiry was made of two officials concerning the circulation of one of its publications. The inquirer was informed under identical dates that the circulation was fifteen thousand and thirty thousand. Though the manager and the president of the company didn't "get together" on the number of subscribers, they were at one in their knowledge that each and every reader was just aching to read the prospective advertiser's announcements. "Honesty is the best policy," and a system of checks and balances is a great aid — sometimes.

TO SEE ourselves as others do is usually interesting when one recovers from the shock. Mr. W. Gamble, the noted English writer on process engraving, says American photoengravers are not successful in producing colorwork, and that they "feel they are behind," which is an un-American state of mind, surely. But the critic applies a mild salve for the wound given our pride when he says

the American by reason of his hustling proclivities is not adapted to attain proficiency in that line because "he has not the plodding, patient disposition and studious habits of English and German workers." In Mr. Gamble's opinion this is another case where the race is not to the swift.

Those in authority at the national capital are economizing on Uncle Sam's printing bill and hope to show a considerable saving at the end of the fiscal year. Their confreres in Great Britain have been doing the same sum, and report an answer of over $900,000 saved on printing and stationery. The public departments had their printing bills cut $50,000, while the politicians in Parliament were not so good to the printerman by $25,000 as they were in the preceding years. These reductions are doubtless justifiable, but there is hope in the thought that governments of enlightened peoples must expect to spend more and more — and vastly more — on printed matter. Cold type and printers' ink are to such governments what air and food are to individuals — indispensables needed in ever increasing quantities.

A British statesman — evidently one of this year's crop — rejoicing in the happy name of Money, has discovered that the printers of the government contractor live from hand to mouth, and is amazed, astounded and filled with regret. He wants some provision made whereby His Majesty's printers may always have "the rocks and tobacco in the old tobacco box," as it were. Money can do much, but this particular Money will have capped the climax if he succeeds in devising means whereby some printers will not be living exponents of impecuniosity, because — well, printers will always be printers — large-hearted, open-handed, devil-may-care fellows, the bohemians of the artisan world. They all like money — whether it be the kind they know so little of, or the M. P. who apparently loves but knows little of them.

Many and many an employer who loses sleep and walks the floor to increase the output of his producing departments is oblivious to the most obvious leaks among the non-productive forces. The inefficient relative or protégé of a friend or customer is just as expensive a luxury as any other sort of incompetent. It smacks of comic-opera business, but we have in mind an office employing regularly two compositors, a boy and a pressman, which had a managerial and clerical force of four of the family. The proprietor had little knowledge of the printing business, but he loudly ascribed his failure to his inability to secure industrious craftsmen. This extreme case serves to illustrate the cause of many failures. A wise man stops the leaks in the barrel before he exhausts his energies carrying water to fill it.

Perhaps no institution has received more unstinted praise from outsiders than the Union Printers' Home. Strangely enough, its management has been provocative of more criticism by members of the union than all the union's other enterprises combined. Fortunately for all concerned, these complainings have been for the most part trivial or on slight foundations, but none more so than the latest — that groceries were purchased from a man who spoke slightingly of unions and that all supplies do not bear the union label, the idea being that the Home management should go without desirable things — necessities maybe — unless they bear the label. Doubtless the label serves its purpose in trade-union propaganda, but there is a disposition to make of it a holy thing — a fetish — which will in the end react to the detriment of labor's cause. Our fanatical friends should not forget that the label is merely a symbol and not the substance of their aspirations. People not only laugh at but they become disgusted with and repudiate a movement when it is conducted in an absurd way.

One of England's successful printers — Mr. Charles T. Jacobi, of the Chiswick Press — in an address to a technical school class on artistic typography, said: "Beyond the workshop experience and classroom study there is much more to be learned. One way of doing this is to keep pace with the technical literature of the trade, and I particularly urge this because it broadens our views. Otherwise our ideas and notions are apt to become cramped or confined to the limits in which we move. To keep pace with improvements in machinery and materials we must go to our trade journals. Besides this, we can often gather through these organs what our friends and competitors, at home and abroad, are doing in their particular spheres." This applies with as much force to the craftsman at far-north Dawson City as to those who heard the words fall from the speaker's lips. The more widespread the practice of an art, the more progressive its tendencies, the greater the need for a systematic perusal of trade journals by those who would be in the van, and the best journal is that which has the most accurate and illuminating information on the every-day problems that perplex the craft at home and abroad. These important though dry subjects do not easily lend themselves to such treatment as permits of making literature. But the instructive and profitable-to-the-reader trade paper is not a

literary enterprise; its mission is an altogether different one, not one whit less important than that of an exponent of the higher art.

THE SAN FRANCISCO DISASTER.

CHICAGO and Baltimore in the days of their disaster, when the fires were still glowing over the vast expanses of ruin, gave an exhibition of self-reliance and determination that received the sympathy and applause of the world. The qualities of courage and fortitude held in suspense in every nation, showing sporadically only in great crises, reaches sublimity chiefly in that composite nation America.

San Francisco, one of the most cosmopolitan cities on the continent, enduring the mysterious terrors of an earthquake, the horrors of conflagration, with the water mains destroyed, and a small stock of dynamite the only recourse to check the advance of the flames, rose to the occasion with a spirit unequaled in the history of the world. Her citizens faced their great loss cheerily, and a debonair fellowship and helpfulness characteristic of the great city was even more marked in her hour of trial than in the days of her greatest prosperity.

It may not take long for the rebuilding of the city on a grander and more enduring plan, but short as that time may be, it will be long enough to test the endurance of printers and others in the trade who have been unable to make provision beyond their temporary needs. Already pressmen, printers, binders, engravers, etc., have been forced to come east seeking employment pending the resumption of activity in the stricken city. THE INLAND PRINTER invites all seeking situations who are now out of employment in consequence of the fire and earthquake to make use of its employment agency and of its want advertisement columns free of charge. It may be that the trade press generally may see advantage in this method of aiding the people of San Francisco and every paper representing special industries and trades can give assistance in this practical way.



SNODGRASS HILL, CHICKAMAUGA. Plate by The Inland-Walton Engraving Company.

Rest with your still and solemn fame;
The hills keep record of your name,
And never can a touch of shame
Darken the buried brow.— *Hemans.*

ORDERLINESS is the handmaid of accuracy and accuracy is the master key to success.



AT ATLANTIC CITY.

Love the sea? I dote upon it — from the beach.— *Douglas Jerrold.*

Plate by The Inland-Walton Engraving Company.

RAISING PRICES.

IT has been said that the English way of meeting the dilemma of a discrepancy between income and expenditure is to reduce the expenditure, while the American method of dealing with the same difficulty is by increasing the income.

There are many ills in the printing business that can be remedied by raising prices, and any good reason that can be brought forward for making an increase in the charge to the customer should be carefully looked into. It would, of course, be folly to try to put into effect a rule that would call for the uniform advancement of prices all along the line, different cases requiring different treatment, and it is well worth our time to give to each case the consideration that it deserves.

If, after looking the matter squarely in the face, you come to the conclusion that you are not getting as much return out of your business as you think that you are entitled to, if you really know what it costs you to produce work, then it is time to try to devise means by which you can best effect the increase in the charging price for your work.

We will grant that it is not the easiest matter to raise the price in the case of reprint jobs. When it comes to raising prices nearly every printer will recall customers who would simply fly off at a tangent at the mere idea of paying more for any of their work. It would be inviting an attack of apoplexy or heart disease to even suggest such a thing. But it is entirely probable that they would entertain with something even akin to equanimity any propositions that would tend to lower the cost to them. Of course, in order to make the jobs somewhat less expensive for such customers it becomes necessary to make some change in them, but so long as it is going to be money in their pockets they will without doubt listen to your propositions. Maybe the occasion will require the use of a cheaper stock than was used before, or likely a less expensive kind of binding would answer the purpose as well, or perchance a set of electros and running the job double solves the problem — when you get your mind right down to it the will will probably find the way — and whatever it may be, do not give all the advantage of the saving to the customer. With a perfectly clear conscience you may be able to convert a loss into a profit, and if in the operation it should happen that you lose a few jobs to your enterprising competitor, if you are sure that he does not know a better way of doing these jobs that you have been losing money on, why, maybe with Christian fortitude you may be enabled to bear up under the affliction.

Whenever by trying to make a paying job out of a piece of work that has previously been a profitless proposition you are rewarded by losing the job, just use the time it would have taken to do the job if it had not gotten away from you in hunting out from your work another such example and see what you can do with it, and if you should lose it try again. If in your quest you should lose enough work to keep from being rushed to death just take a few days off and go fishing; it will do you good and pay better. A. K. T.

AN INVESTIGATION OF TRADES UNIONS.

"STUDIES IN AMERICAN TRADE-UNIONISM" (Henry Holt & Co., New York), is an unusual book — one is tempted to use that much-abused term unique — so far as the manner of its making is concerned. It is one of the results of the investigation into trade-union life and activity which has been conducted by Johns Hopkins University during the past three years. The book contains, including the introduction by the well-known Prof. Jacob H. Hollander, who has served the state in many fields as an investigator, twelve chapters. Two of these — "The Government of the Typographical Union" and "Collective Bargaining in the Typographical Union" — by Dr. George E. Barnett, are of especial interest to many readers of THE INLAND PRINTER. The others have to do with various unions and employers' associations and are written by college graduates who aim to become expert investigators of industrial conditions. The character of the authors is demonstrated by a sketch of two of them. Doctor Barnett is associated in political economy at Johns Hopkins and the best posted man on organizations in the printing trades that we have; the other, William H. Buckler (who contributes "The Minimum Wage in the Machinists' Union"), is one of Maryland's wealthy, public-spirited citizens, has been a member of one of Baltimore's leading law firms and is dipping into diplomacy as secretary of the special embassy to the Spanish royal wedding. Other contributors were poor in purse and lowly in station, but none the less earnest and honest in their endeavors to unearth the truth. A sketch of how the work was made will show with what care the ground was covered. A man being assigned a subject, the university assisted him in collecting data that would be of service. Constitutions, circulars, publications, minute books, private and semi-private letters and reports were sought and obtained. These were critically read and digested. Correspondence with well-informed persons was resorted to to clear up doubtful and obscure passages, and if this failed, the knowing ones were interviewed. The investigators spent months getting information at first hand from official records at the headquarters of organizations of employers and employees and from the principal actors in the various movements.

At stated intervals each investigator was required to read the result of his work before the class, augmented by the professors. To some this must have been an ordeal, for it became the duty of all to challenge statements, calling for proof, and dissect the conclusions. Nothing could be devised which would be a more effective guard against "hot air," of any of the many varieties, which is the bane of books on the labor question. It is not claimed the essays are without error, but the manner of their making is guarantee to those deeply interested that there is creditable information within the covers of "Studies in American Trade-Unionism."

In the introduction, Professor Hollander points out the lack of adequate investigation in America of trade-unionism and other economic fields. But a change has been wrought and now "economic science in the United States has come to be studied with a vigor and activity unequaled in any European country and unsurpassed in the case of any of the natural sciences."

He also refers to the enmity that long existed between trade-unionists and economists and gladly notes its disappearance, due in part to the adoption of newer and truer methods of the economist, and the consequent recognition by the unionist that the scientist is not an advocate, but an investigator — a delver after truth.

THE TRADE SCHOOL.

WE notice that a central labor organization in the East has declared war on "all trade schools" and calls upon its subordinate bodies to prohibit members from teaching in them. Knowing nothing of the special case which provoked this action, and knowing also that grievous abuses may flourish in trade schools, details can not be discussed, even if there were an inclination to do so. The term "trade schools" is vague; it is fair to assume, however — at least the generality of mankind will do so — that all forms of supplementary industrial education come under the ban of this resolution. This is a short-sighted and untenable position — one that some labor organizations in Europe have been compelled to abandon. The logic of events is against those — especially workingmen — who oppose supplementary trade education just as surely as it was against those who in an early day opposed that elementary education which is now the right of every child.

The men who adopted the condemnatory resolution know as mechanics and artisans that with the introduction of machinery and the subdivision of labor it is extremely difficult for a youth to acquire a thorough knowledge of his trade. They are also aware that the standard of general all-round proficiency among workmen is trending downward, rather than upward. Not that men are less intelligent or lack in industry, compared with those who preceded them, but because conditions are not suitable to the easy and profitable making of journeymen. To rave against such a situation is unavailing; the men who in the past took a pride in "turning out" apprentices obviously lost no money on that account. If they were in the flesh and in business now they would follow the custom of the day; for the most part, they could not afford to do otherwise.

Now, who suffers from this system which evolutes half-baked workmen from the shops — men who know how to do some one thing, but have no conception of the properties of the materials they handle and little theoretical knowledge of the processes which preceded and followed theirs in the making of the finished article? The specially alert and unusually adept will "make good" some way — nature's endowment assures them their measure of success. Those who bear the burden imposed by the system are those of average mental attainments and ordinary adaptability — in other words, the great mass of the workers. To this class supplemental trade education opens a way to overcome the defects of our industrialism and to develop to the utmost the powers nature has bestowed. This is the class that is the backbone of all activities, commercial or otherwise; around it the trade-union philosophy developed, and on its behalf the movement has gone forth to battle. Unionists have always and everywhere insisted that wages should be based on the productive capacity of the average man — not of the abnormal workman. This has ever been the central idea in their demands.

If there were no record of unions having opposed trade education and being compelled to recant, the fact that opposition will be detrimental to the average man is sufficient to show the error of such an attitude. In the unions the ordinary man is bound to be a factor and he will not be deprived of an opportunity to equip himself for the battle of life. He can dominate, right or wrong, and will do it easily when he is on the side of progress and enlightenment. Abuses will be exploited under the cloak of industrial education, and they should be fought with vigor, but to condemn the principle, as this central body apparently does, is not only wrong, but it leaves the weeds of abuse to flourish unmolested. If the unionists are wise they will learn from the experience of their European fellows and watch carefully and sympathetically the coming innovation, so that the greatest good may come to those they are most vitally interested in — the average men, who have to fight hard for all they achieve.

TRADE CONFERENCES.

THE eight-hour struggle has settled down to a test of endurance between the International Typographical Union and those employers who refused to concede the demand, and who now constitute the United Typothetæ. While the battle line was not so long as might have been expected, there has been abundant justification of the prophecy made in these columns, that those who yearned for a conflict would have their longing satisfied. This affair followed an era of unprecedented peace in craft circles, and it appears that the outbreak marked an epoch in industrial warfare in the typographical world. Until the eight-hour movement was launched, it had been the custom to have a number of small strikes about sundry and inconsequential matters, and when over there was little settled. And because of their being nothing of importance involved, the end was reached in two or three weeks.

This has been a battle royal because great interests are at stake and the outcome is bound to have a far-reaching effect on the industry. In cities where the strike has been in progress for six or eight months, employers are still seeking men, and union men are still paying assessments sufficient to allow the strikers as much as $15 a week. This impost is not maintained for sentimental reasons solely, though comparatively few unionists would baldly desert their fellows after they had relinquished their jobs for principle's sake. As long as the organization is menaced the assessment will be continued, for what the unionists deem good business reasons. On being asked when the assessment would be declared off, an influential member of a large eastern union, whose contribution is about $4 a week, voiced the spirit of the militant ones in replying: "Not while we are under fire." According to this view, so long as the employers resist the union will fight, and vice versa. This means a long-drawn-out struggle with appalling waste — all because there was lack of common sense and foresight. It is impossible to estimate what it has cost employers to secure men, in loss of work and other incidental expenses of a strike, but we can get an inkling of the wastage from the union side. Assuming that forty thousand members of that organization are employed, a tax of ten per cent for strike purposes means that all the wages of four thousand men are devoted to the purpose. Taking the low figure of four dependents to each wage-earner, the resultant



Photo by Homer Knight. SUNDAY IN THE PHILIPPINES. Plate by The Inland-Walton Engraving Company.

amount is equivalent to the wages fund of a community of sixteen thousand souls. Before the days of large and regularly paid strike benefits, some one estimated that in well-contested struggles, employers were penalized, in one way and another, $10 for every dollar expended by the union. If in this instance the expenditure has been dollar for dollar, the drain has been heavy. All this without reference to the enormous loss in wages suffered by the workers, who take such happenings philosophically, for being on strike is not nearly so fearful a contingency as being out of a job.

On top of this is the severe shock given the trade by the arbitrary reduction to eight hours. This affected the "innocent bystander," as it were — the employer who remained neutral, expecting that ere January 1 rolled round there would be some means devised whereby the transition could be brought about with the minimum of friction. We know now that the union officials were not averse to such a settlement of the controversy, and were behind the liberal proposals made at the Detroit conference. It is among the possibilities that if negotiations had been entered into before the first blow was struck, the date of enforcement might have been postponed on assurances that the Typothetæ would not then oppose the establishment of the eight-hour day. So all the waste and worry, all the disturbance and hard feelings are due to the ill-considered refusal to follow the custom of the craft and "talk things over" in a fair and honest manner.

Some followers of the graphic arts do these things better. The lithographers met the same questions on the same day, but in a different way. The parties in interest came together and the eight-hour day was instituted in a manner which has brought contentment to all of one party without impairing the prosperity of a single one of the others. This is as it should be, and those who would have it otherwise may be following ideals and actuated by high motives, but they are marplots.

THE METRIC SYSTEM.

THE *Monetary Times*, of Toronto, Canada, in a recent issue, says: "The opponents of the Metric System seem to be possessed with the very enthusiasm of resistance to its adoption. Within a fortnight we have received three different batches of literature combating the system, two of them by post from the United States, and one conveyed to us by a Toronto manufacturer." After reciting in detail the character of the opposition's material, the *Times* continues, in referring specifically to some of the literature, "'The Metric Fallacy,' a lecture at Cornell by Frederick Halsey, who is an American authority on the subject; and lastly a 230-page book entitled 'The Metric Fallacy,' of which, however, the last 100 pages bear at the top of the page the subtitle, 'The Metric *Failure*,' so determined are its authors, S. S. Dale and Fred A. Halsey, so full of threatenings and slaughter, that the system has no chance of sympathy or even life." . . . "The book says 'the changing of established standards is impossible' . . . 'The trend throughout the world is toward the supremacy of the English language and the English yard-pound." This book is the most cogent collection of argument against the Metric System that we have seen." The *Times* says it is in place for the advocates of the system from Lord Kelvin to Simon Newcomb and the various boards of trade to furbish up their armor, also that the system's most pronounced advocates are German scientists and manufacturers, conceding, however, the existence of a large and growing following in Great Britain. "But many American engineers, manufacturers and writers demur entirely to its necessity and even question its relative convenience." The book is published by the D. Van Nostrand Company, of New York, and sells for $1.

Apropos of the Dale and Halsey contentions and their "Much ado about nothing" (seeing they have themselves denominated the system a "*Failure*"), it is desirable to look on the other side of the ramparts and see what signs of activity there may be in the thing they so trenchantly decry. A "*Failure*" is dead already, so why waste 100 book pages in setting out a list of the funeral habiliments? It must be a case similar to the Irishman's chicken that hopped about after decapitation. Pat philosophically declared the hen *was dead*, but "had not yet come sinsible on it."

The *Business World* reports that, with a view of adopting the "Failure" in Canada, the government has engaged Prof. J. C. McLennan, of the University of Toronto, to devote the next year to explaining the system in all the leading cities, from Halifax to Vancouver. His first lecture was delivered at Stratford on February 9, before the board of trade, which body unanimously adopted resolutions urging the adoption of the system.

Why do not Dale, Halsey, et al., *insist* on the rehabilitation of the L. S. D. Monetary System, at least on their friends? They seem to forget that in 1800 the money values of the United States were still noted in England as pounds, shillings and pence, though the mint at Philadelphia was established in 1791 and Congress legalized the present decimal system of coinage in 1792.

In colonial times, the pound had various values, according to its habitat. In New England and Virginia its value was 15 shillings sterling; in New York and North Carolina, 11 s. 3 d.; in New



Photo by Eugene J. Hall.

Plate by The Inland-Walton Engraving Company.

MAMMOTH CAVE OF KENTUCKY.

Jersey, Pennsylvania, Delaware and Maryland, 12 s.; and Georgia, 18 s. sterling. The dollar equivalents are purposely omitted so as to give a practical illustration of the "desirability" of returning to this method of counting our monetary "goings out and comings in."

To get to the crux of the matter, how would the ultra advocates of a method that is obsolete and one that gives more chance for errors hundreds of times over than the one they so blindly decry, delight themselves in doing the following sum, which we extract from a "Miscellaneous Arithmetic," published at London in 1773?

"A tradesman stands indebted to several persons, as follows, viz.: To A, £50 17 s. 6 d.; to B, £119 14 s. 8 d.; to C, £40 10 s. 6 d., and to D, £141 19 s. Now, as his whole estate amounts to no more than £327 15 s. 10½ d., how must it be divided among his creditors that each man may have a share in proportion to the debt due him?" Four 3¾ by 6½ pages are devoted to the solution of this problem and it would be interesting to know how many of the "100 pages" Messrs. Dale and Halsey would require.

Is either Mr. Dale or Professor Halsey aware that the American people are gradually discarding many of the common usages of the English System of weights and measures, so as to have greater brevity? The stone, equivalent to 14 pounds; the hundred weight, quarter and ton. The capacity of American railroad cars is given almost universally in *pounds* and not tons. If emasculation has set in, why not turn over the old for that which is new to us but *not untried*, which is not a failure, but a success? If the yard, foot, inch and ordinary parts of an inch, ranging ½, ¼, ⅛, 1-16, 1-32, 1-64, 1-100, 1-1000 and 1-10000, are so superior to an interchangeable one of uniform values for multiples and submultiples based on *ten*, why not discard our convenient decimal money system that is based on ten and use the pounds, shillings and pence again?

The worst of all is that we have no common basis for the units of weight, length and capacity — but pounds are multiples of ounces (16); feet of inches (12), and gallons of quarts (4).

Undoubtedly some inconvenience and confusion will result in making the change, but is it any more, relatively, than was involved in the recent change of the *entire* system of street names and house numbers, established by official enactments at Cleveland, Ohio, a city of 500,000 inhabitants? The future gain compensates for the necessary readjustments incidental to the transition.

N. S. A.

A NECESSITY INSTEAD OF A LUXURY.

THE INLAND PRINTER is a necessity instead of a luxury.— *James H. Hallock, Imlay City, Michigan.*

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. IV.— BY N. S. AMSTUTZ.*



IN the course of these researches it has been found that the work has been extended and made more laborious than ordinarily necessary, because there were no tables giving data as to screen pitches, unit areas, diagonal pitches, dot diameters, dot areas, white and black dots relation to unit area, etc., available.

Out of these disadvantages have grown Tables G and H. These will enable any one to make various comparisons without having recourse to many detailed calculations, and in some instances without making any whatever. They are arranged to save the time of the busy worker who turns out large quantities of work per day and who is deserving of far more recognition than is usually accorded him.

When one considers the minutiæ of the various dimensions that he almost unconsciously deals in,

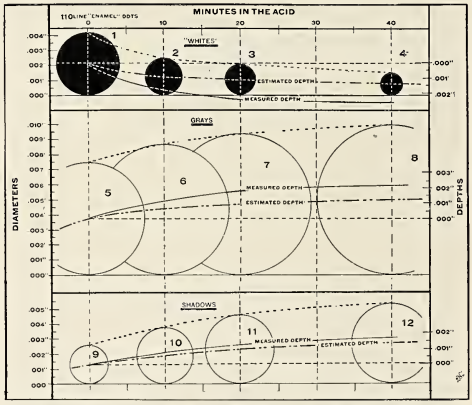


FIG. 16.— Showing change in **size and depths** of **110-line** engravings, Figs 9, 10 and 11, tabulated in Table F and shown in Fig. 17.

the degree of perfection attained is almost marvelous. It is thought, however, that the processman will find the tables more serviceable if some explanation is given as to the origin of the various values, as well as a concise definition of what they mean. In Table G are given the following values for various lines per inch:

LINES PER LINEAL UNIT (No. 1 of Fig. 18.)— This has to do wholly with the number of lines found on the screen or the engraving within any given *standard* dimension. Among English-speaking peoples, the number of separate lines in

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.

each *inch* is used. The other unit is the *centimeter* of the metric system of measures. (There are 2.54 centimeters in one inch and .3937 of an inch in each centimeter.) The lines per lineal unit, as ordinarily used, are expressed as *lines per inch,* and they consist of the numbers given in Table G. The principal standard screen numbers are listed. Of course, special rulings are frequently made, and it should be stated that these researches and the tables, diagrams and illustrations used are all based on screens in which the two sets of lines are displaced 90°; other angled screens require special investigations. If there is any question as to the lines per inch of any half-tone print, they can be easily counted by simply placing a rule over it and, with the aid of an eyeglass, counting the lines in a quarter of an inch, which, multiplied by four, will give the number per inch. Should the basis of comparison be ⅛ or 1-10 inch, the number should be multiplied by 8 or 10. A very convenient half-tone screen indicator is published by the Suffolk Engraving & Electrotyping Company, of Boston.

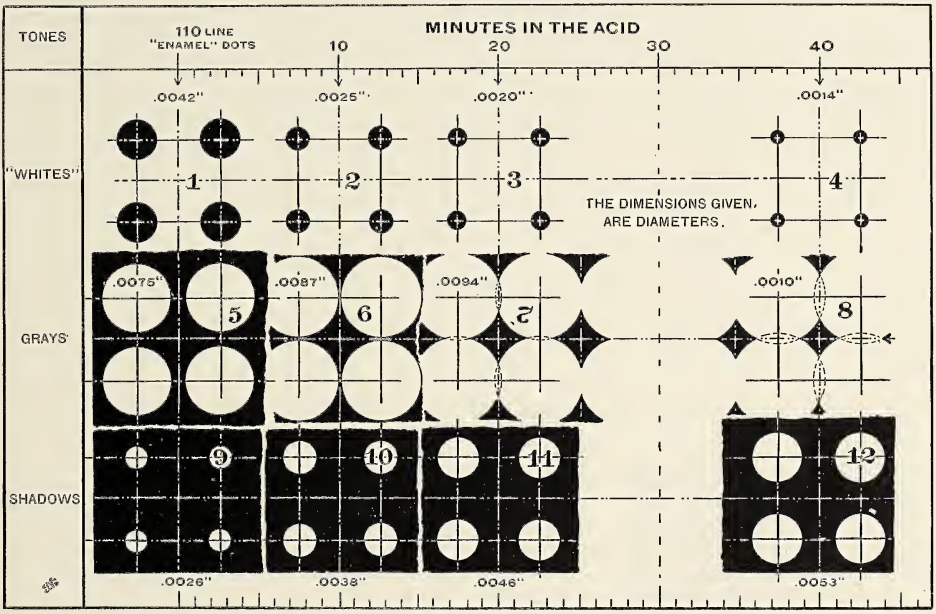


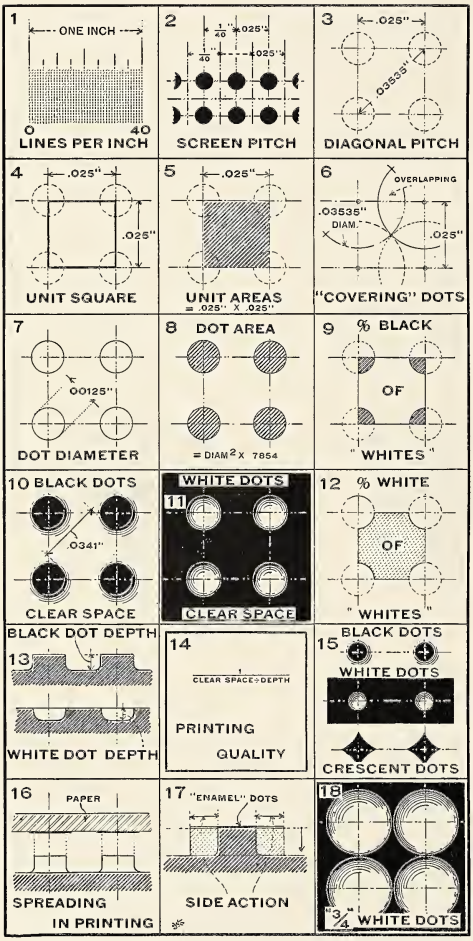
Fig. 17.— Showing change in size of 110-line dots of Figures 9 10 and 11, and Table F, and Fig. 16.

Screen Pitch (No. 2 of Fig. 18).—The distance from the center of one line to the center of an adjacent one is known as screen pitch. It is expressed as a *fraction* of the unit — either an inch or centimeter. It is the *shortest* distance between the centers of any contiguous dots. At 65 lines per inch, the value would be 1-65 of an inch, approximately 1-25.6 of a centimeter. In the tables the value is expressed in decimal parts of an inch, as .01538, which is the equivalent of 1-65 inch. This value is found by dividing 1 by the lines per inch, which, in technical language, means that the decimal equivalent of such a fraction is the reciprocal of the number of lines per inch. It is necessary to know this in order to calculate unit area and therefrom determine the percentage value of black or white of any given size of dot.

Diagonal Pitch (No. 3 of Fig. 18).— This dimension is the distance from the center of one dot to the center of another in a *diagonal* direction. It may also be said to be the *greatest* distance between the centers of any two contiguous dots. It is found by squaring the screen pitch and taking two times this amount and extracting its square root. In short, it is $\sqrt{p^2+p^2}$ wherein the letter p stands for screen pitch. It is useful when one desires to establish the printing quality of the *black* dots (●) in the "whites." In the instance of a 65-line screen, the diagonal pitch becomes $\sqrt{\frac{1^2}{65}+\frac{1^2}{65}}$ or $\sqrt{.01538^2+.01538^2}=\sqrt{.000473}=.02175$. The printing quality may be considered as applying, only to the "whites," as the white dots (○) of the shadows will ordinarily take care of them-

selves. The depth in the shadows can not be accentuated beyond that interrelation which recognizes the depths of the various portions of an engraving as being about proportional to the intensity of the light reflected from the corresponding portion of the subject.

UNIT AREA (No. 5 of Fig. 18).— One of the most important factors in determining the tonal relations of an engraving is that of the interrelated areas of dot faces. This decides largely



NOTE.—No. 11: White dot clear spaces are the same as the dot diameters

FIG. 18.— ILLUSTRATED GLOSSARY OF HALF-TONE ENGRAVING TERMS.

how much "color" is present in the different parts of a plate and on it depends the quality of brilliancy, when the relation of dot area to unit area is considered. Without comparing the relation of dot areas to some unit, they are meaningless and of little value. Unit area is not the same for all lines, and it is found by squaring the screen pitch, or in other words, by multiplying the screen pitch by itself. Unit area may also be defined as the area of a unit *square* (No. 4 of Fig. 18) whose sides are equal to the screen pitch, and when one side is multiplied by the other one will give the area. Assuming 65 lines per inch, one multiplies 1-65 inch by itself and finds the product (.01538 × .01538) to be .0002365 square inch. (In the metric system unit area would be $\frac{1}{25.6}$ centimeter × $\frac{1}{25.6}$, or .039 × .039, which gives .00152 square centimeters.) The unit of measurement for the areas is taken as the *one* ten-millionth of a square inch. This is done because the carrying along of the ciphers becomes an unwieldy process, and instead of using .0002365 it is less complex to only use the integers and let 2365 represent unit area at 65 lines per inch. Since the dot areas are also given in terms of the same unit, they may be compared at once.

"COVERING" DOT.—This term is an improvised one that indicates the theoretical diameter to which the white dot (o) of the shadows would have to be *increased* to an imaginary size so that four dots would meet at the center of a unit square (shown at 6 of Fig. 18) and thereby entirely *cover* a unit square. The diameter of such a "covering" dot will be the same as the diagonal pitch.

The highest percentage values given in Table H indicate the portion of the combined area of four covering dots that falls within the boundary lines of a unit square. Since a part of the area of each "covering" dot falls over a similar part of another dot, these portions are said to overlap and the amount of the overlapping within a unit square is the excess beyond 100, of the highest percentage values given in Table H.

In Table H, which is combined with Table G, are given the following values for various diameters of dots and different screens, which are arbitrarily selected:

DOT DIAMETER (7 of Fig. 18).— This refers to the diameters of dots, whether white or black, and it is approximately found from inspection of Fig. 7 for 65, 110 and 150 lines per inch at any assumed time in the acid, or by direct examination with a microscope that has a screen reading at least to .002 inch, from which it is not difficult to estimate to .001 inch and to half-thousandths of an inch.* Direct examination guards against the modifying effect of a considerable variation in specific gravity and temperature of the acid. In Table H the dot diameters are given in thousandths and half-thousandths, which are sufficiently close for practical work, as inspection of the changes in per-

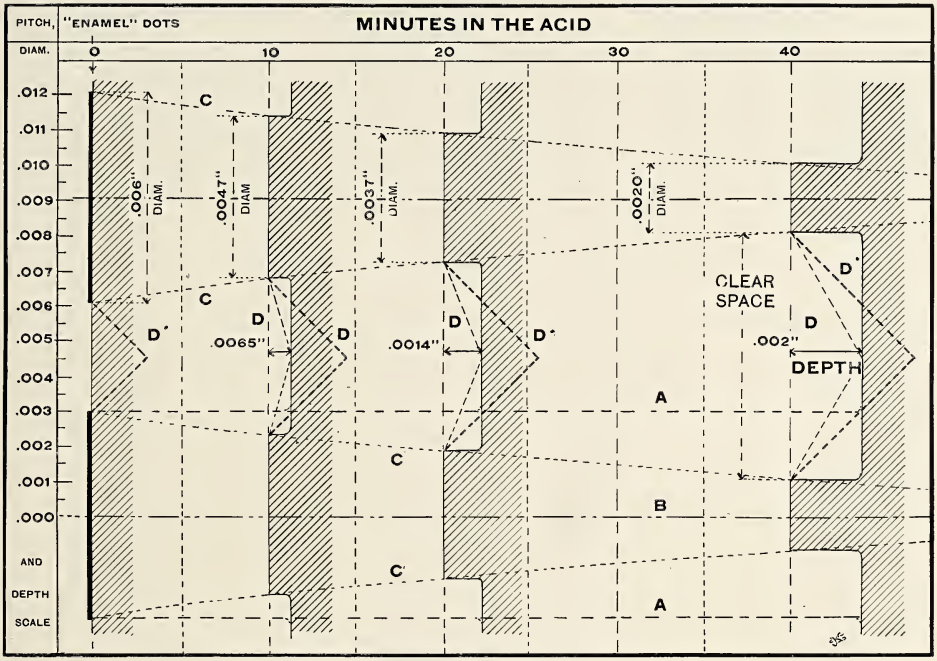
* Screens of .001 inch are easily procured.

centages for half-thousandth variations in diameters will show. For the finest screens the variation should be in quarter-thousandths. If one has a certain area and wishes to know what dot diameter will be its equivalent, it is only required to divide the area by .7854 and extract the square root of the quotient. From the column of dot areas in Table H one can approximate the dot diameter for a given area by selecting the area that comes the *nearest* to the one in question and noting the corresponding diameter.

Dot Area (8 of Fig. 18).— This represents the actual printing surface and it is found by squaring the dot diameter and multiplying by .7854; briefly, $d^2 \times .7854$, in which d represents the diameter. Dot areas of from 5. to 15. are so small as to be practically indiscernible to the naked eye of even an expert. When they represent black dots in the "whites," their presence in a print, well made, is only indicated by a slight overcasting shade, which, to the uninitiated, would appear like "nothing at all." A dot diameter of .0025 inch has an area of 49. — what? It is a long way around to say 49. ten-millionths of a square inch. Why not say 49 talbots, and honor the memory of Fox Talbot, the celebrated Englishman, who did such pioneer work in the production of printing plates from photographs? He was born in 1800 and died in 1877. A talbot would represent the *unit of area.*

Percentage Relation (9 and 12 of Fig. 18). —This is the proportion that dot area bears to unit area. It is always a fractional part of the whole and is found by taking the dot area as the numerator and the *unit* area as the denominator of a fraction. The decimal equivalent of such a fraction is the value given. If the dot in question is a white one (○), the percentage value will be in white; if a black dot (●), it will be in black. The difference between the given percentage and 100 will always give the converse. Suppose a .0025 inch diameter black dot (●), at 65 lines; this shows a percentage of 2.07 of black, if a *black dot* is in question, and under this condition the white would be represented by 100. minus 2.07 or 96.93 per cent. Should a white dot (○) be under comparison, the names "black" and "white" would be transposed.

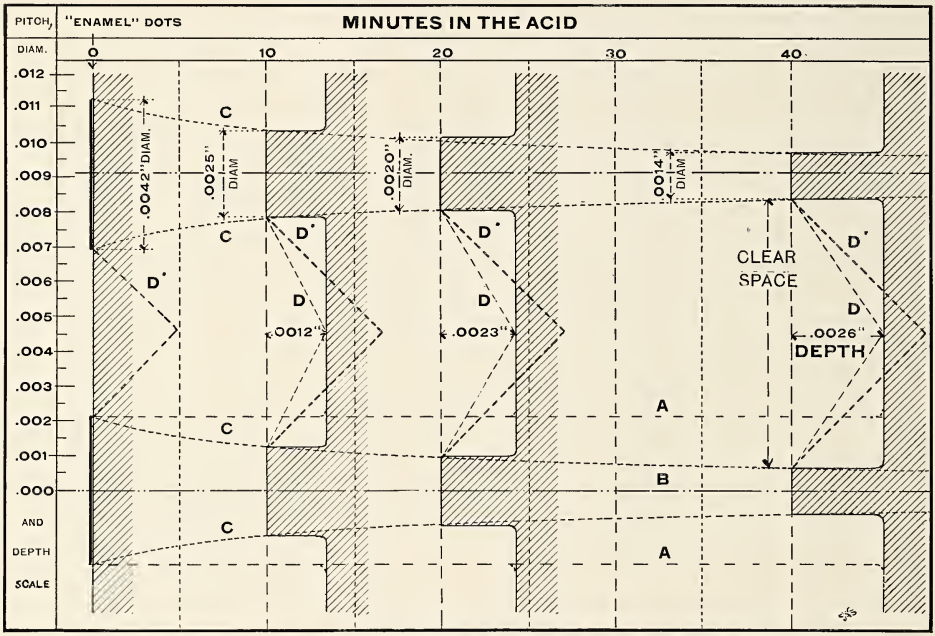
These percentages are given in Table H for 50, 65, 85, 100, 110, 150 and 200 lines per inch, and one can approximate therefrom the probable values for other lines per inch.



Calculated characteristics.

Fig. 19.— Showing **conventional form of dots, depth, diameter and side action of 110-line** engraving, Fig. 2. Tabulated in Tables A and B. The clear spaces are **not diagonal,** consequently the relation of depth to clear space is greater than if the diagonal distance was used.

CLEAR SPACE (10 and 11 of Fig. 18).— The space, from which the material has been removed, between the edges of any two adjacent printing surfaces is called a "clear space." It is used, in determining the printing quality of relief engravings, in conjunction with the *depth* to which the material has been removed. For the "whites" it is found by subtracting the dot diameter from the diagonal pitch. This is given in the table for the same screens as the percentages. In the case of a 65-line screen and a .002-inch diameter dot, the previous observation. Suppose at an examination a certain set of • dots measured .006 inch in diameter on the "enamel" and at another examination they were .004 inch smaller, leaving them but .002 inch diameter; theoretically the depth would be one-half of the whole reduction, or .002 inch. For the black dots this theoretical depth is too small, as shown in Fig. 16, but for the smallest o dots it is approximately accurate. These deductions are based on depth measurements of Figs. 9, 10 and 11, given in Table F. They are also



Measured CHARACTERISTICS.

FIG. 20.— Showing **conventional form of dots, depth, diameter and side action of 110-line** engravings, Figures 9, 10 and 11, from Table F The clear spaces are **not diagonal,** consequently the relation of depth to clear space is greater than if the diagonal distance was used.

clear space is .01975 inch. If this is divided by the depth and the quotient is taken as the denominator and 1 as the numerator of a fraction, and the fraction is then expressed decimally, a value indicative of the printing quality will be found. If one should care, as a matter of academic interest, to ascertain this for the white dots of the shadows, one would consider the clear space as *identical* to the dot diameter and proceed as above. Table I gives the printing quality for various depths and clear spaces.

ETCHING DEPTH.—(13 of Fig. 18).—This is not given in the table, but the theoretical depth based on the side action in flat etching is approximately one-half of the reduction in diameter of a given dot that has taken place subsequent to a shown in "Pictorial" Graphic Curves of Fig. 16, wherein different conditions of time of etching, dot diameters, dot areas, calculated and measured depths are illustrated; and in Fig. 17 the same data are presented in four-dot sets, numbered from 1 to 12, inclusive, similar to Fig. 16, showing their relation to unit area.

Fig. 18 is an illustrative glossary of the various terms used in the course of these articles, showing eighteen small figures, which it is thought will materially assist the reader.

Fig. 19 shows the *calculated* relation of depth to "clear space" of the data of Table A. The clear space is not in a diagonal direction.

Fig. 20 is based on similar data, but in *measured* values from Table F.

Figs. 21, 22, 23 are three special test engravings at 65, 110 and 150 lines per inch, in order to determine therefrom the depth values of Table K, at 110 lines, the black dot (•) depths, in terms of $\frac{1}{200}$ millimeter, at a magnification of 87 diameters, with a series of ten readings gave 15, 14.5, 14, 14, 15, 14.5, 18, 16.5, 17.5 and 14.5, or a mean of 15.35. These are standard etches and the depth is given as an exemplification of ordinary practice from which to judge the interrelation between various lines per inch, the dots and depths.

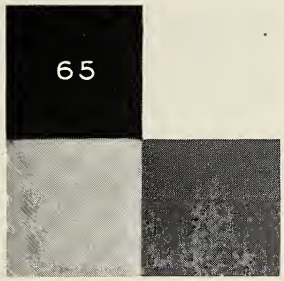


Fig. 21.



Fig. 22.

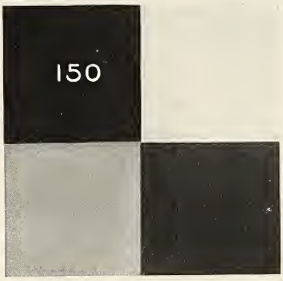


Fig. 23.

The numbers indicate the lines per inch. They are ordinary etches. It will be noticed how much nearer to white the coarsest screen runs in comparison to the finest lines, because the smallest black dot (●) bears a smaller relation to unit area and the ratio of the two unit areas to each other is in favor of the coarser lines. The data relating to these special test engravings are given in Table K.

Messrs. J. A. C. Branfill and William Gamble, of London, have given the relation of stop size and shape to screen distance exhaustive treatment, so that this phase of the subject is only touched on in passing.

It is interesting to note the etching rate of Fig. 2, in comparison with those of Figs. 9, 10 and 11, as disclosed by the curves on Fig. 24, especially the difference in rate between the ○ and • dots.

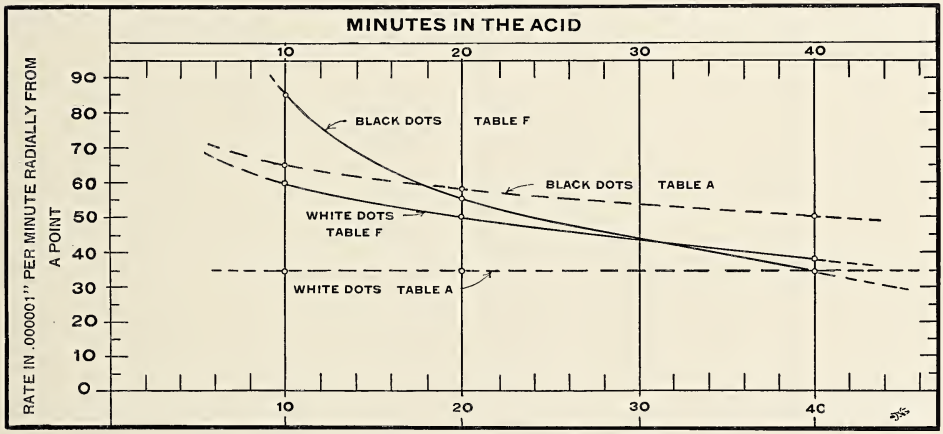


Fig. 24.— Etching rates at **110 lines** per inch, from Tables A and F, and Figures 2, 9, 10 and 11.

It might be said, "let well enough alone," but no trial by error process is "*well enough*," and many failures and anxious moments could be avoided by an intelligent inspection of dot diameters in etching and the use of properly graded stops in the camera. It goes without saying that the degrees Baumé of the acid, as well as its temperature, are vital, and should be noted by the careful etcher.

Messrs. J. A. C. Branfill and William Gamble, of London, have given the relation of stop size and shape to screen distance exhaustive treatment, so

This figure, with the gray values omitted, is self-explanatory. Table J gives the data of Table F from which Fig. 24 was drawn, the other data are found in Table A.

When the white dots (○) are under consideration, the PRINTING QUALITY (14 of Fig. 18) values given in Table I are for ideal conditions. The unit

TABLE G.—Giving **pitches, unit areas** and **"covering"** dots for various lines per inch.

KINDS OF DATA.	Lines per Inch for Tables G and H.					
	50	**65**	**85**	**100**	**110**	**120**
Screen pitches	.02000 in.	.01538 in.	.01176 in.	.01000 in.	.00910 in.	.00833 in.
Diagonal pitches	.02830 in.	.02175 in.	.01663 in.	.01413 in.	.01287 in.	.01178 in.
Unit Areas	**4000.0** sq. in.	**2365.4** sq. in.	**1380.6** sq. in.	**1000.0** sq. in.	**828.0** sq. in.	**693.9** sq. in.
Diam. of "Covering" dots	.02830 in.	.02175 in.	.01663 in.	.01413 in.	.01287 in.	.01178 in.

TABLE H.—Giving **percentages, clear spaces** and **dot data** for above listed lines per inch.

Dot Diameters.	Dot Areas.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces
.0010 in.	7.85	.196	.0273	.33	.02075	.57	.01563	.79	.01313	.95	.01187	1.13	.01078
.0015	17.67	.44	.0268	.75	.02025	1.28	.01513	1.77	.01263	2.13	.01137	2.55	.01028
.0020	31.42	.79	.0263	1.33	.01975	2.27	.01463	3.14	.01213	3.79	.01087	4.57	.00978
.0025	49.09	1.23	.0258	2.07	.01925	3.55	.01413	4.91	.01163	5.92	.01037	7.07	.00928
.0030	70.69	1.76	.0253	2.98	.01875	5.12	.01363	7.07	.01113	8.53	.00987	10.20	.00878
.0035	96.21	2.41	.0248	4.07	.01825	6.97	.01313	9.62	.01063	11.62	.00937	13.88	.00828
.0040	125.66	3.14	.0243	5.31	.01775	9.10	.01263	12.57	.01013	15.18	.00887	18.13	.00778
.0045	159.04	3.98	.0238	6.72	.01725	11.52	.01213	15.90	.00963	19.20	.00837	22.95	.00728
.0050	196.35	4.90	.0233	8.30	.01675	14.20	.01163	19.64	.00913	23.70	.00787	28.30	.00678
.0055	237.58	5.93	.0228	10.02	.01625	17.20	.01113	23.76	.00863	28.69	.00737	34.30	.00628
.0060	282.74	7.06	.0223	11.94	.01575	20.45	.01063	28.27	.00813	34.15	.00687	40.78	.00578
.0065	331.83	8.28	.0218	14.03	.01525	24.0	.01013	33.18	.00763	40.05	.00637	47.80	.00528
.0070	384.85	9.62	.0213	16.28	.01475	27.85	.00963	38.49	.00713	46.45	.00587	55.50	.00478
.0075	441.79	11.05	.0208	18.68	.01425	32.0	.00913	44.18	.00663	53.30	.00537	63.70	.00428
.0080	502.66	12.56	.0203	21.25	.01375	36.4	.00863	50.27	.00613	61.0	.00487	72.50	.00378
.00833a	**544.98**	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	**78.60**a	.00345
.0085	567.45	14.18	.0198	23.98	.01325	41.1	.00813	56.75	.00563	68.5	.00437	82.	.00328
.0090	636.17	15.92	.0193	26.89	.01275	46.1	.00763	63.62	.00513	76.9	.00387	92.	.00278
.0091a	**650.04**	.....	.....	.....	.....	.....	.....	.....	.....	**78.5**a	.00377	.....	.....
.0095	708.82	17.73	.0188	29.90	.01225	51.3	.00713	70.88	.00463	86.	.00337	102.	.00228
.0100a	**785.41**	19.64	.0183	33.20	.01175	56.8	.00663	**78.54**a	.00413	95.	.00287	113.	.00178
.0105	865.90	21.65	.0178	36.58	.01125	62.6	.00613	87.	.00363	105.	.00237	125.	.00128
.0110	950.33	23.79	.0173	40.18	.01075	68.9	.00563	95.	.00313	115.	.00187	137.	.00078
.0115	1038.69	25.95	.0168	43.90	.01025	75.1	.00513	104.	.00263	125.	.00137	150.	.00028
.01176a	**1086.20**	.....	.....	.....	.....	**78.7**a	.00487	.....	.....	.....	.....	.....	.....
b .01178	1089.89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	156.	.00000
.0120	1130.97	28.3	.0163	47.75	.00975	82.	.00463	113.	.00213	137.	.00087		
.0125	1227.19	30.7	.0158	51.88	.00925	89.	.00413	123.	.00163	148.	.00037		
b .01287	1290.92	.....	.....	.....	.....	.....	.....	.....	.....	156.	.00000		
.0130	1327.32	33.2	.0153	56.10	.00875	96.	.00363	133.	.00113				
.0135	1431.14	35.8	.0148	60.50	.00825	104.	.00313	143	.00063				
.0140	1539.38	38.45	.0143	65.00	.00775	112.	.00263	154.	.00013				
b .01413	1568.11	.....	.....	.....	.....	.....	.....	157.	.00000				
.0145	1651.30	41.3	.0138	69.80	.00725	120.	.00213						
.0150	1767.15	44.15	.0133	74.62	.00675	128.	.00163						
.01538a	**1867.81**	.....	.....	**78.9**a	.00637	.....	.....						
.0155	1886.92	47.15	.0128	80.	.00625	137.	.00113						
.0160	2010.62	50.1	.0123	85.	.00575	146.	.00063						
.0165	2138.25	53.45	.0118	90.	.00525	155.	.00013						
b .01663	2172.08	.....	.....	.....	.....	157.	.00000						
.0170	2269.80	56.7	.0113	96.	.00475								
.0175	2405.28	60.15	.0108	102.	.00425								
.0180	2544.69	63.6	.0103	108.	.00375								
.0185	2688.03	67.2	.0098	114.	.00325								
.0190	2835.29	70.9	.0093	120.	.00275								
.0195	2986.48	74.6	.0088	126.	.00225								
.0200a	**3141.59**	**78.5**a	.0083	133.	.00175								
.0205	3300.64	83.	.0078	140.	.00125								
.0210	3463.61	87.	.0073	146.	.00075								
.0215	3630.50	91.	.0068	154.	.00025								
b .02175	3715.44	.....	.....	157.	.00000								
.0220	3801.33	95.	.0063										
.0225	3976.08	99.	.0058										
.0230	4154.76	104.	.0053										
.0235	4337.36	109.	.0048										
.0240	4523.89	113.	.0043										
.0245	4714.35	118.	.0038										
.0250	4908.74	123.	.0033										
.0255	5107.05	128.	.0028										
.0260	5309.29	131.	.0023										
.0265	5515.46	138.	.0018										
.0270	5725.55	143.	.0013										
.0275	5939.57	149.	.0008										
.0280	6157.52	154.	.0003										
b .02830	6290.18	157.	.0000										

* = CLEAR SPACES of BLACK DOTS only. CLEAR SPACES of WHITE DOTS are the same as the dot diameters.

a = Region of "Three-quarter" white, or birth of Crescent dots.

b = Diameters of "Covering" dots.

The illustrated definitions of the names used, shown in Fig. 18, do not show square, diamond or elliptical shaped dots which are produced by special diaphragms.

The percentages above the "a" region are only approximate. The values are dissipated in "overlapping" and the HIGHEST values indicate the whole area of the overlapping effect, to the extent that they exceed 100.

TABLE G.—Giving **pitches, unit areas** and "**covering**" dots for various lines per inch—*Continued.*

KINDS OF DATA.	Lines per inch for Tables G and H.					
	133	**150**	**175**	**200**	**250**	**300**
Screen pitches	.00752 in.	.00666 in.	.00571 in.	.00500 in.	.00400 in.	.00333 in.
Diagonal pitches	.01064 in.	.00942 in.	.00808 in.	.00707 in.	.00565 in.	.00471 in.
Unit areas	**565.5** sq. in.	**443.5** sq. in.	**326.0** sq. in.	**250.0** sq. in.	**160.0** sq. in.	**110.9** sq. in.
Diam. of "Covering" dots	.01064 in.	.00942 in.	.00808 in.	.00707 in.	.00565 in.	.00471 in.

TABLE H.—Giving **percentages, clear spaces** and **dot data** for above lines per inch—*Continued.*

Dot Diameters.	Dot Areas.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.	Dot Per Cent.	Clear* Spaces.
.0010 in.	7.85	1.39	.00964	1.77	.00842	2.4	.00708	3.14	.00607	4.91	.00465	7.8	.00371
.0015	17.67	3.13	.00914	3.98	.00792	5.42	.00658	7.07	.00557	11.04	.00415	15.93	.00321
.0020	31.42	5.56	.00864	7.08	.00742	9.65	.00608	12.56	.00507	19.65	.00365	28.32	.00271
.0025	49.09	8.65	.00814	11.06	.00692	15.09	.00558	19.62	.00457	36.8	.00315	44.25	.00221
.0030	70.69	12.52	.00764	15.95	.00642	21.7	.00508	28.26	.00407	44.2	.00265	63.7	.00171
.0033a	**85.53**	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	**77.1a**	.00141
.0035	96.21	17.05	.00714	21.7	.00592	29.52	.00458	38.5	.00357	60.1	.00215	87.	.00121
.0040a	**125.66**	22.25	.00664	28.32	.00542	38.55	.00408	50.15	.00307	**78.6a**	.00165	112.	.00071
.0045	159.04	28.15	.00614	35.7	.00492	48.8	.00358	63.6	.00257	99.	.00115	144.	.00021
b .00472	174.97	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	157.	.00000
.0050a	**196.35**	34.75	.00564	44.25	.00442	60.2	.00308	**78.5a**	.00207	123.	.00065		
.0055	237.58	41.8	.00514	53.6	.00392	72.9	.00258	95.	.00157	149.	.00015		
b .00565	250.72	.....	.....	.....	.....	.....	.....	.....	.....	157.	.00000		
.00571a	**256.07**	.....	.....	.....	.....	**78.6a**	.00237	.....	.....				
.0060	282.74	50.0	.00464	63.7	.00342	86.	.00208	113.	.00107				
.0065	331.83	58.65	.00414	74.7	.00292	102.	.00158	133.	.00057				
.00666a	**348.37**	.....	.....	**78.5a**	.00276	.....	.....	.....	.....				
.0070	384.85	68.05	.00364	87.	.00242	118.	.00108	154.	.00007				
b .00707	392.58	.....	.....	.....	.....	.....	.....	157.	.00000				
.0075	441.79	78.18	.00314	99.	.00192	136.	.00058						
.00752a	**444.15**	**78.9a**	.00312	.....	.....	.....	.....						
.0080	502.66	89.9	.00264	113.	.00142	154.	.00008						
b .00808	512.76	.....	.....	.....	.....	157.	.00000						
.0085	567.45	100.	.00214	127.	.00092								
.0090	636.17	113.	.00164	144.	.00042								
b .00942	696.93	.....	.....	157.	.00000								
.0095	708.82	125.	.00114										
.0100	785.41	138.	.00064										
.0105	865.9.	153.	.00014										
b .01064	889.16	157.	.00000										

* = Clear spaces of black dots only. White-dot clear spaces are the same as the dot diameters.
a = Region of "Three-quarter" whites, or birth of "Crescent" dots.
b = Diameters of "Covering" dots.

"1" is taken as indicating when the clear spaces are the *same* as the depth. This value, if the ink transference from the rollers to the printing face was theoretically perfect, would continue to represent printing quality, even though the dimensions were much reduced below those ordinarily considered as having reached the *practical* limits of minuteness.

Theoretical printing quality values require a modification which may be termed the press constant, which will vary with the ink, hygroscopic, temperature and paper conditions. The values given in Table K show a better printing quality for the white dots (○) than for the black ones (●), because the depth, in proportion to clear space, is *greater* in the case of the former than the latter; this explains why the white dots (○) will persist in printing in backgrounds, etc., when the customer may want a dead black, which can not, however, be attained in proper harmony without remaking the engraving or burnishing down the size and depth of the undesired dots.

If the printing quality of the white dots (○) was not better than that of the black ones (●) the minuteness of their dimensions would certainly not admit of any printing value at all. When one deals with diameters of .0026 inch and depths of only .0012 inch at the points where the largest masses of ink are dealt with, the results are little short of marvelous and the engraving and allied printing arts take on all the features of *precision* engineering.

It ordinarily appears on the face of things that the "whites" of a 65-line engraving should have a better printing quality than those of a 150-line etching. If the quality of the latter was *less* than the former it would not print at all. The reason any of the fine line engravings print is because of their superior printing quality.

Superficially considered, printing quality is entirely a matter of *depth of etch;* a little analysis will dispel this idea. Suppose a given etch of .005 inch depth and a clear space of .010 inch, the tendency for the ink rollers and paper to "dip in"

TABLE I.—Showing relation of **clear spaces** to **depth** or **printing quality.**

Depths.	CLEAR SPACES.																		
	.001″	.002″	.003″	.004″	.005″	.006″	.007″	.008″	.009″	.010″	.011″	.012″	.013″	.014″	.015″	.016″	.017″	.018″	.019″	.020″
.0005″	**.50**	**.25**	.16	.125	**.100**	.083	.071	.063	.055	**.050**	.045	.042	.038	.036	.033	.031	.029	.028	.026	.025
.0010	**1.0**	**.50**	.33	**.25**	.20	.17	.14	.13	.11	**.100**	.09	.08	.077	.071	.067	.063	.059	.056	.053	**.050**
.0015	1.5	.75	**.50**	.38	.30	**.25**	.21	.18	.17	.15	.14	.13	.12	.11	**.100**	.094	.088	.083	.079	.075
.0020	**2.0**	**1.00**	.66	**.50**	.40	.33	.29	**.25**	.22	.20	.18	.17	.15	.14	.13	.125	.12	.110	.105	**.100**
.9025	2.5	1.25	.83	.63	**.50**	.42	.36	.31	.28	**.25**	.23	.21	.19	.18	.17	.16	.15	.14	.13	.125
.0030	**3.0**	1.50	**1.00**	.75	.60	**.50**	.43	.38	.33	.30	.27	**.25**	.23	.21	.20	.19	.18	.17	.16	.15
.0035	3.5	1.75	1.16	.88	.70	.53	**.50**	.44	.39	.35	.32	.29	.27	**.25**	.23	.22	.21	.19	.18	.17
.0040	**4.0**	**2.00**	1.33	**1.00**	.80	.67	.57	**.50**	.44	.40	.36	.33	.31	.29	.27	**.25**	.24	.22	.21	.20
.0045	4.5	2.25	1.50	1.10	.90	.75	.64	.56	**.50**	.45	.41	.38	.35	.32	.30	.28	.26	**.25**	.24	.23
.0050	**5.0**	2.50	1.66	1.25	**1.00**	.83	.72	.63	.55	**.50**	.45	.42	.38	.36	.33	.31	.29	.28	.26	**.25**
.0055	5.5	2.75	1.93	1.38	1.10	.93	.79	.68	.61	.55	**.50**	.46	.42	.39	.37	.34	.32	.31	.29	.28
.0060	**6.0**	**3.00**	**2.00**	1.50	1.20	**1.00**	.86	.75	.67	.60	.55	**.50**	.46	.43	.40	.38	.35	.33	.32	.30
.0065	6.5	3.25	2.16	1.60	1.30	1.08	.93	.81	.72	.65	.59	.54	**.50**	.46	.43	.41	.38	.36	.34	.33
.0070	**7.0**	3.50	2.33	1.75	1.40	1.11	**1.00**	.88	.78	.70	.64	.58	.54	**.50**	.47	.44	.41	.39	.37	.35
.0075	7.5	3.75	2.50	1.88	1.50	1.25	1.07	.99	.83	.75	.68	.63	.58	.54	**.50**	.47	.45	.42	.39	.38
.0080	**8.0**	**4.00**	2.66	**2.00**	1.60	1.33	1.14	**1.00**	.89	.80	.73	.67	.62	.57	.53	**.50**	.47	.44	.42	.40
.0085	8.5	4.25	2.83	2.13	1.70	1.42	1.21	1.06	.95	.85	.77	.71	.65	.61	.56	.53	**.50**	.47	.45	.43
.0090	**9.0**	4.50	**3.00**	2.25	1.80	1.50	1.28	1.12	**1.00**	.90	.82	.75	.69	.64	.60	.56	.53	**.50**	.47	.45
.0095	9.5	4.75	3.16	2.38	1.90	1.57	1.35	1.17	1.06	.95	.86	.79	.73	.68	.63	.59	.56	.53	**.50**	.48
.0100	**10.0**	5.00	3.33	2.50	**2.00**	1.67	1.43	1.25	1.11	**1.00**	.91	.83	.77	.71	.67	.63	.59	.55	.53	**.50**

TABLE J.—Showing **Etching Rates** of Figures 9, 10 and 11 and Table F @ **110 lines** per Inch.

DATA.	"Enamel."	10 Minutes.	20 Minutes.	40 Minutes.
FOR SMALLEST BLACK (●) DOTS OF "WHITES."				
Diameter	.0042 in.	.0025 in.	.0020 in.	.0014 in.
Reduction of diameter		.0017 in.	.0022 in.	.0028 in.
Rate per minute		**.000085 in.**	**.000055 in.**	**.000035 in.**
Measured depth		.0017 in.	.0023 in.	.0026 in.
Estimated depth		.00085 in.	.0011 in.	.0014 in.
FOR WHITE (○) DOTS OF GRAYS.				
Diameter	.0075 in.	.0087 in.	.0094 in.*	.0100 in.*
Increase of diameter		.0012 in.	.0019 in.	.0025 in.
Rate per minute		**.00006 in.**	**.000048 in.**	**.000031 in.**
Measured depth		.0012 in.	.0018 in.	.0022 in.
Estimated depth		.0006 in.	.00096 in.	.00124 in.
FOR SMALLEST WHITE (○) DOTS OF SHADOWS.				
Diameter	.0026 in.	.0038 in.	.0046 in.	.0053 in.
Increase of diameter		.0012 in.	.0020 in.	.0027 in.
Rate per minute		**.00006 in.**	**.00005 in.**	**.000034 in.**
Measured depth		.0008 in.	.0013 in.	.0017 in.
Estimated depth		.0006 in.	.0010 in.	.00128 in.

*Modified by "crescent" shaped black dots which originate at the time the white dots have been increased to a diameter that is *equal* to the screen pitch; in this case, @ 110 lines, to .0091 inch.

TABLE K.—Data of Special Test Engravings, Figures 21, 22 and 23, for **Depths, Diameters** and **Printing Quality,** at **Different Lines per Inch,** Under Ordinary Etching Conditions.

KINDS OF DATA.	LINES PER INCH.								
	65 lines.			110 lines.			150 lines.		
	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows	"Whites"	Grays	Shadows
	●	○	○	●	○	○	●	○	○
Diameters†	.0026″	.0119″	.0058″	.0018″	.0090″	.0050″	.0013″	.0065″	.0026″
Areas, ○ or ●	**53.09●**	**1112.21**	**264.21**	**25.46●**	**636.17**	**196.35**	**13.27●**	**331.83**	**53.09**
Per cent white	97.76	47.	11.18	96.92	76.9	23.7	97.02	74.9	11.97
Per cent black	2.24	53.	88.82	3.08	2.31	76.3	2.98	25.1	88.03
Measured depths†	**.0038″**	**.0027″**	**.0020″**	**.0030″**	**.0026″**	**.0018″**	**.0020″**	**.0017″**	**.0012″**
Clear spaces*	.0192″	.0119″	.0058″	.0111″	.0090″	.0050″	.0081″	.0065″	.0026″
Printing quality	**.198**	**.267**	**.290**	**.270**	**.289**	**.360**	**.247**	**.261**	**.461**
Screen pitches	.01538 in.			.00910 in.			.00666 in.		
Diagonal pitches	.02175 in.			.01287 in.			.00942 in.		
Unit areas	**2365.4** sq. in.			**828.0** sq. in.			**443.5** sq. in.		
"Covering" dots	.02175 in. diam.			.01287 in. diam.			.00942 in. diam.		

* Clear spaces of white dots are of the *same* dimension as their dot diameters.

● = Smallest black dots in "whites." ○ = White dots in grays. ○ = Smallest white dots in shadows.

† Values verified with Bausch & Lomb Optical Co.'s DD8 Microscope, under **a magnification of 87 diameters,** with a ⅔ objective and a 1-inch ocular. The depth values given are the mean of ten separate readings from different portions of the "whites," grays and shadows.

would be one-half as great, approximately, as when the clear space was increased to .020 inch; so then the narrower the space, in relation to depth, the better is the printing quality within the practical limits of ink viscosity, spreading action of impression, solidity and surface of the paper.

With viscous or "long" ink the practical limit is reached long before the theoretical limit is approached. With ordinary "short" ink the white dots begin to bridge over or fill up when they have a diameter of .001 inch, but on account of the spreading action (16 of Fig. 18) of the ink in taking an impression on the press, an engraved dot of .0015 inch diameter will show signs of closing up in the print.

With a highly viscous ink of the double-tone order, white dots of from .002 to .0025 inch diameter show the filling action of the ink. It would be interesting to note whether an arbitrary dot or depression .002 inch diameter and a depth *greater* than an etched dot, produced by *mechanical* means, would show the same tendency to fill up as does the etched dot under the *same* conditions of inking, impression and paper.

Table I clearly shows the various clear spaces by stages of .001 inch and depths by changes of .0005 inch. The figures at the intersections are indicative of the printing quality; they are deduced from the formula shown in square 14 of Fig. 18.

The formation of crescent dots (15 of Fig. 18) and the activity of second or periodic acceleration is controllable to a large extent by using a diaphragm to produce square dots in the middle and "three-quarter" tones; also by arbitrarily causing the dots in *one direction* to remain linked or joined (sausage type) while disconnected in the other direction.

The "V" lines of Figs. 19 and 20 show to what angles of grooves wood-engraving practice would have to be modified to conform to the acid-etched depths and clear spaces of half-tones, by light dotted lines, D. The heavy dotted lines, D^1, show what the depths would be under wood-engraving practice if a 90° (included angle) graver was used with the same clear spaces as shown for the acid conditions.

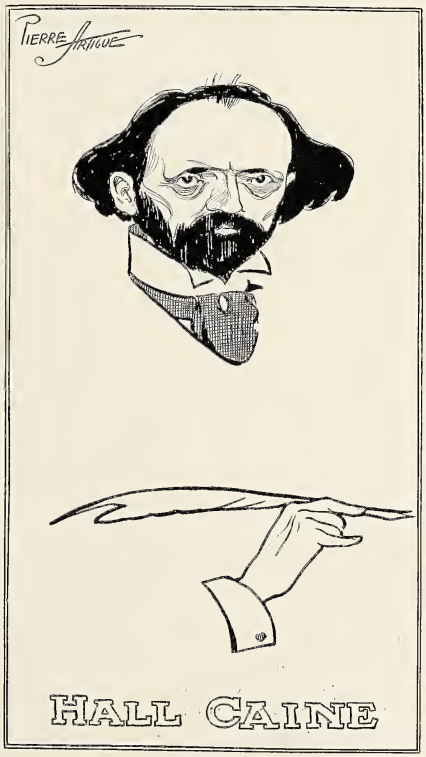
The element of uncertainty found in etching practice is largely due to a lack of precautions, which, if taken, would avoid the "making over" of many pieces of work, give the etcher greater control and confidence over, and in, his medium, and thereby eliminate the unsatisfactory quibbling between the clerical and practical departments of the business. What the operator and etcher require to know is, that *specific* causes under *like* conditions produce *identical* results. No amount of specious reasoning will alter this inexorable law and the sooner its *scope* is learned the better for the trade and all concerned.

It now remains to more exhaustively investigate the law of second or periodic acceleration, and it is hoped to also present numerous photo-microscopic enlargements produced in a novel manner so as to admit of easy and definite comparisons. The relation of half-tone and wood engraving printing qualities will also be made the subject of further treatment, as well as the co-relation of mechanical engraving methods as applied to specialized uses. The relation of specific gravity of the etching medium to temperature and the effect on *etching* rates will also be taken up in due time.

(To be continued.)

FEELS THE LOSS.

For many years I have been getting this instructive, artistic and highly esteemed journal through one of our local dealers. He went out of business last summer, and since then I have been realizing, in a cumulative way, that something is missing about the office; that I am growing stale and rusty as to what is going on in the great world of printerdom. I hope you will appreciate the situation and let the back numbers come quickly and in a bunch.—*W. A. Fiske, Portsmouth, Virginia.*



Written for THE INLAND PRINTER.

COLOR PHOTOGRAPHY.

BY A. SPECTROS.

THE advancements made in color photography have been marked and ere long shall we have such a plate as will enable the amateur to simply make his exposure, develop the plate, and presto! an image in natural colors?

The Lippmann (Paris) process is a bona fide single-exposure development method, but is too complex for the tyro. It shows colors on account of the thinness of a series of developed strata occurring *within* the thickness of the gelatin film of the dry plate.

Mr. Senior, of the Chelsea Polytechnic, London, has made some marvelous micro-photos showing a Lippmann dry plate film in *section* so as to disclose the different strata of developed silver. The various strata, selectively, on account of interference, show the natural colors when the plate is viewed at an angle or through a viewing prism; it does not lend itself to duplication.

The process known as the McDonough-Joly depends on the use of a lined color screen placed in front of the sensitive plate. This screen is ruled in parallel lines of three colors — red, greenish yellow, and blue — which are duplicated entirely across the plate in their three-in-a-group order. These color lines act the same as ordinary color filters in the now well-known three-plate, three-exposure method which uses three separate color filters, each of which covers the *entire* area of a plate.

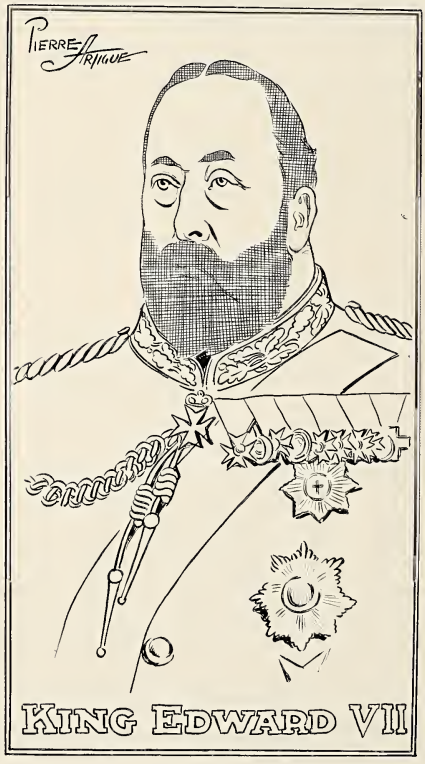
This process involves the making of an exposure, developing the plate into a negative and making a positive therefrom. Over the positive a viewing screen, also ruled in groups of three colored lines, is fastened. The developed bands of silver of the positive will modify or shut off one or more of the lines, according to the color value of the original, so that in looking at the bound screen and positive by transmitted light one is able to observe very good color intensities and gradations. The difficulty of the process lies in the necessity of using a color screen attached to *each* positive and the difficulty of holding the lines of the positive throughout the chemical stages so as to come, when dry, in register with those of the screen. A printing scheme was proposed and some considerable progress made, but the difficulties of register and the degraded color values of the prints — causing them to lack all brilliancy — were fatal to its practical success.

The optically superimposed image process of F. E. Ives renders beautiful color values and is a successful method; it, however, requires three separate color filters and three separate plates in its manipulation.

A foreign process of Herr Szczepanik, a Galician, which was proposed a few years ago, contemplated the use of three superimposed films of color. The effect was produced in a subtractive manner, by causing one or the other color to *fade away* more or less under the action of the light through a color value positive.

The Samplo-Brasseur system is similar to the McDonough-Joly process, excepting that the former does not show a *lined* result in the positives, because during the time they are printing, an opaque and transparent lined screen, held in register with the negative, is gradually shifted the width of a single transparent line, so as to eliminate all screen or line effects from the completed plate, the same procedure being followed for each color; this process produces a final plate similar to the three-exposure methods from a single exposure.

The Powrie-Warner (Chicago) process is a single-exposure development method. The ruled line effect of the McDonough system is retained,



but there are no screens used in the taking or viewing stages, as the "screen" manipulation has to do wholly with the *manufacture* of the plates. This, as well as other "line" processes, depends upon the researches of Duc du Hauron.

The Powrie-Warner method comprises the coating of a plate with bichromatized gelatin and printing under a parallel line screen having opaque lines .002 inch wide and transparent spaces between them .001 inch in width. The opaque part of the screen shields the gelatin and thereby prevents its hardening; this then washes away under the action of hot water. The remaining gelatin is stained a suitable green color, another coating of sensitized gelatin is placed on the plate over the green lines and a second print made under the screen; this time the screen is shifted laterally .001 inch so as to lay bare to the action of the light one-half of the clear space, .002 inch wide, between two green lines, and the print is subjected to a wash in hot water and a red color stain is applied. A third time the plate is coated and printed, this time to expose only the remaining clear space, .001 inch wide, between a green and a red line and then washed and stained in violet-blue dye. After each dyeing the plate is flowed with a thin transparent solution, impervious to moisture.

The plate, with its three sets of lines occurring on different planes, without being *superimposed*, is coated with a panchromatic emulsion and exposed from the glass side and developed in the ordinary manner. The colors will show in reverse order from the object, but on making a positive they will appear in their proper values and relation. As stated, the screen work only has to do with the manufacture of the plates, thus relieving the user from all of the difficulties of the previous methods, in which a single exposure was the desideratum. These plates are being prepared for the market.

The Lumiere (French) starch grain process has recently been described in the *British Journal of Photography* of March 9, 1906, from which we make extracts. It is an interesting single-exposure development method that utilizes starch grains of such diminutive size as to entitle them to be called "microscopic." They are twenty thousandths of a millimeter in diameter. As a millimeter is $\frac{1}{25.4}$ inch the size of the starch grain in inches becomes a very small amount, or $\frac{20}{1000}$ of $\frac{1}{25.4}$ inch, which equals $\frac{1}{1270}$ inch, or the equivalent of 1270 lines per inch in ordinary parlance. This corresponds to a little more than $\frac{1}{12}$ of the values of plane diffraction gratings, such as are used in the Tallent Spectroscopic Cameras — replicas of Rowland gratings — at 14,500 lines per inch. The Lumiere grain is so formed as to have no *unoccupied* spaces between grains, and the grains do not overlap. The grains of one color order must leave room between them for the occupancy of grains of other color orders, so that the distance between grains is equal to twice the diameter of a single grain: hence the pitch between those of one order will be equivalent to 423 lines



per inch, but as between the adjacent grains of separate orders the equivalent will be 1,270 lines per inch.

For comparison it is interesting to note that the wave length of red is about $\frac{1}{40000}$ inch and of blue $\frac{1}{60000}$ inch.

If on the surface of a sheet of glass, and in the form of a thin *single* film, a collection of minute grains or microscopic elements, transparent and colored reddish orange, green and violet are spread, we shall find, if the spectral absorption of these elements is correct, and if they are in correct proportions, and *not superposed*, that the film thus obtained, when examined by transmitted light, will not appear colored, but it will only absorb a fraction of the transmitted light.

The luminous rays traversing the colored

starch grains, which become fundamental screens, orange, green and violet, are reconstructed and form white light if the sum of their surfaces for each color and the intensity of the coloration of the grains exists in proper proportions. The thin, granular trichromatic film thus formed is subsequently coated with a panchromatic emulsion.

If, now, such a plate be submitted to the action of an image from a colored subject, taking the precaution to expose it through the back, the light rays traversing the fundamental screens will, according to their own color and the color of the screens they pass through, suffer a variable absorption or will be variably suppressed. We thus have an automatic selection by the starch grains which enables us to obtain colored images after development and fixation, the colors being complementary to those of the original.

The complementary or negative image is formed as follows: Suppose, for example, that a part of an object is colored red, the red rays emanating from it will be suppressed by the green grains of the film, while the violet and orange grains will allow them to pass through and reach the panchromatic film which covers the tri-colored starch particles and, selectively, reduce the silver bromid contained therein. It will, therefore, be acted upon by the only light which is transmitted through the miniature orange and violet " filters." On development, above the green starch granules there will appear no silver discoloration, after fixation, because such portions of the panchromatic film have not been acted on by the suppressed red rays reflected from the object.

In short, development reduces the silver bromid of the film and masks or covers the orange and violet grains, and the green color spots or grains will be visible, because the silver bromid above them has not been reduced. We have, then, in this case, a remnant or part of the plate area colored green, which is complementary to the red rays we have been considering. The same phenomena will occur with the other colors; that is to say, with green light rays from the object the green particles will be masked and the remaining area of the film appear red. In the case of yellow values, violet images will appear, and so on.

A negative comprising these complementary colors will give, on a plate prepared in a similar way, positives that are complementary to the negatives; that is to say, positives which will reproduce the colors of the original.

The difficulties which have been encountered in the application of this method were numerous and considerable, but after laborious researches they have been surmounted, and the Lumiere Company is preparing to place such plates on the market.

It will be interesting to indicate some of the conditions which had to be fulfilled to prove how delicate the problem was.

They had first to find a film formed of miniature or microscopic filters, orange, green and violet. It was necessary that this film should adhere to its support, be very thin, and that the coloration of the grains or particles of which it was to be composed should be specifically determined as regards intensity and exactness of color, and in regard to the number of grains in a given area. The colors must not be unstable, physically and optically; they must not *run*, and there must be no overlapping of the colored grains and no unoccupied spaces. The film, finally, needed to be covered with a varnish that had the same index of refraction as the grains.

It was necessary that the sensitive panchromatic film should be orthochromatized — so that there should be a true rendering of colors — and that the orthochromatism should bear a relation to the nature of the emulsion used and the color values of the granular " filters." The film produced by the emulsion must be of such a nature as to prevent light diffusion, and all the manipulations, development and exposure required harmonizing with these fundamentals.

The brief enumeration of one condition incident to the development of the process will serve to show how much care and what precautions were necessary. First, potato starch had to be separated by special instruments, for it is necessary that the grains have a diameter of from fifteen to twenty thousandths of a millimeter. These " miniature screens " or starch grains were divided into three groups and then, respectively, stained reddish orange, green and violet, by the aid of special coloring materials. These three groups of colored " powders " were mixed, after complete desiccation, in proper proportions, so that the composition did not show any residual color. The resulting powder was then brushed on to a sheet of glass coated with a sticky film. Under proper precautions, there was obtained a single film of separately colored grains which touched each other, but without any overlapping.

The grains being circular, the open spaces between more than two grains had to be covered up by a suitable process of dusting thereon an opaque substance so that no white light could be transmitted at these points. This opacity was secured by means of an extremely fine, black powder, for example, of wood charcoal. Thus was formed a multiplicity of screens on every unit area of surface. There are 2,890 of these small grains, forming unit screens, of orange, green and violet, in a square millimeter, 1,864,500 per square inch. A surface when thus prepared must be protected

by a suitable varnish that has about the same refractive index as the starch grains possess; one that is quite impermeable. On such a surface a thin panchromatic film of sensitive emulsion of silver bromid is placed and when dry the commercial plate is finished.

Exposures are made in the ordinary way in any suitable camera, but in every instance the precaution must be taken to reverse the plate, so that the glass side is toward the lens, which will cause the rays from the lens to first pass through the colored starch grains before they reach the sensitive emulsion of the film. It was found necessary to place a special yellow screen in the lens to subdue the high actinism of the violet and blue rays. The absorption of the light, due to its having to traverse *through* the colored starch granules, although a highly sensitive emulsion was used, necessitated an exposure somewhat longer than usual. It is, however, possible to obtain exposures in sunshine in 1-5 second with a lens rapidity of (British) f-3. The negative is developed as in ordinary photography, and if one only fixes the image, there will result, as has been pointed out, a negative, when viewed by transmitted light, that shows the colors that are complementary to those of the object photographed.

If it is desired to reëstablish the order of the colors of the object on the *negative itself*, by chemical reversal, it is necessary that the silver which was acted on by the light and reduced by the developer be dissolved by any suitable bath. the remaining silver bromid is then developed, producing an image having a variable opacity factor which is complementary to that of the negative which was obtained by the first development. The manipulations are simple and but slightly different from those found in ordinary photography.



CUTTING CLOVER.

The Sanger-Shepherd process and the use of Fitch's films has made lantern-slide color photography very popular in England. Marvelous perfection has been reached in the true rendering of color values. The process consists in printing from a negative made with a color filter on to a bichromated gelatin film, *through* its transparent support or as is technically known "through the back," washing in warm water to remove the unacted gelatin and thereafter staining the remaining portions of gelatin in the color conforming to the filter used in making the negative. One such print is made for the red, one for the yellow, and one for the blue values of the subject. These are then superimposed and bound together to make

superb lantern slides. Three separate exposures are required and three distinct films have to be made and stained, so that the process, while giving splendid results, is yet a considerable distance from a *one*-exposure development method. This process, along with other similar ones mentioned, can be classified as *indirect,* in contradistinction to the Lumiere or Powrie-Warner systems.

As interesting as the previous processes are, they do not cover the entire range of desirable features, as it is difficult to translate the results on to *paper,* as is done with ordinary silver prints. Considerable work along these lines has been accomplished in England by Miss Acland, of Oxford, and Mr. E. J. Wall, of Sidcup.

Generally speaking, these methods consist in tri-printing and superposing the separate prints, by offsets or by direct color applications by way of stains, either in additive or subtractive manipulation.

On March 6, 1906, Mr. E. J. Wall gave a demonstration before the Royal Photographic Society, London, on "Prints in natural colors by the Pinatype process and with superimposed carbon tissues." Among other things, according to the *Photographic Journal,* Mr. Wall said both processes were based on the principle of the subject being split up into three negatives by means of color filters, as in all trichromatic photography, and negatives taken for any printing process could be used for them.

All printing processes were subtractive, and therefore differed from projection processes, which were additive processes. In the latter case one started with a black screen or surface and obtained color by the admixture of red, green and violet lights in proportions that were decided by the transparencies used in the lantern. In printing processes, we started with a white surface and obtained color by subtracting light from it by means of red, yellow and blue pigments. These particular colors were used because it was only by the use of them that the intermediate shades of orange and green could be formed; whereas if red, green and violet were used, dirty browns and greens only would be formed.

The Pinatype process was briefly as follows: Ordinary transparencies were made from the three negatives, and plates coated with gelatin and sensitized with a two per cent solution of a bichromate salt were exposed under these transparencies, the necessary exposure being as usual timed with an actinometer. The plates were washed to free them from the bichromate, and then stained up in the dye baths. The plate exposed under the transparency of the negative taken through the red screen was stained with blue, the plate from the transparency of the negative taken through the green screen was stained up in red, and that from the violet screen plate was stained up in yellow.

At first the plates took rather long to stain up, but when they were thoroughly stained, gelatinized paper was well soaked in water and then squeegeed to one of the dyed plates and left for ten or fifteen minutes. Then the same piece of paper was squeegeed to another dyed plate, and finally to a third. The lecturer stated that he had found it was best to take the blue impression first, and then superimpose the yellow and then the red; in no case should the yellow be the first pull, as it was extremely difficult to distinguish the image on white paper.

If one color was too faint it could be strengthened by again squeegeeing the print to the necessary dyed plate, or if too strong it could be weakened by squeegeeing down to glass coated with gelatin.

The dyed print plates could be used over and over again, and the process was a very economical one, as the consumption of dyes was comparatively small.

After the print was finished it was advisable to immerse it in a bath of fixative, which hardened the gelatin and rendered the colors more stable, and prints had been exposed to sun and daylight for twelve months with but little change.

Transparencies could also be made by this process, and glass should be coated with a five per cent solution of gelatin sensitized with two per cent of ammonium bichromate, allowing 50 minims to 3¼ inches square; when dry this should be exposed under one of the transparencies, washed, stained up in the corresponding dye, and then again coated with the bichromated gelatin and exposed under another transparency, taking care that the outlines coincided, and then washed and stained up and the operation again repeated for the third dye. An alternative method was to make the yellow image on a separate glass and use as a cover glass.

The superimposed carbon process which the lecturer had used was that of the Rotary Photographic Company, in which the pigmented gelatin was coated on thin celluloid, which was placed in contact with the negative while printing. Abandoning the maker's directions, which the lecturer thought a little too stringent, he used a two per cent solution of ammonium bichromate with ten per cent of alcohol. He sensitized the tissues at night, and allowed them all night to dry.

Exposure was of course, as usual, determined by an actinometer, and, having found that for the blue print, the yellow required one less and the red one number more. Development could be effected by warm water not exceeding 110° F. in temperature. It was necessary to coat paper with an

eight per cent solution of gelatin and then squeegee the yellow print down first; this was most important, as the yellow pigment was opaque; then this should be allowed to dry and the celluloid stripped and then the blue and yellow images treated in exactly the same way.

There were no particular difficulties in the process, and any carbon-worker could at once find himself at home in it.

The exposure was exactly the same for each color. Overexposure gave too much color, underexposure gave too little color.

Mr. Wall had a little member of his family, aged eleven, who had been making prints by the Pinatype process, and he was not sure that some of those he had shown were not made by his daughter. The process simply amounted to exposing correctly, putting the plates in the baths and squeegeeing down on to the paper. With regard to the question as to the process being commercially adopted, one superimposed carbon tissue process had been commercially adopted in Berlin, and the Kaiser, submitting himself for two hours or so, had fifteen or sixteen negatives taken, and expressed himself quite satisfied with the results.

The name Pinatype was undoubtedly suggested from a Greek word meaning, "I drink"; as the gelatin *imbibed* the dyes, absorbed them or "drank" them, the name seems an appropriate one for imbiption processes.

Apropos of this presentation of color photography, the April, 1905, *Bulletin* of the Belgian Photographic Association contained an interesting paper by A. Cullier on the preparation of *colored screens.*

This paper is supplementary to a previous study by the author on orthochromatic plates; it deals with the theory, preparation and use of yellow screens. The introduction treats of the theory of screens and the methods of observation adopted. The properties of an ideal screen which will enable one to reproduce spectrum colors with the relative values of luminosity they present to the eye, are considered the effects of *contrast* screens, which allow the violet rays to pass, and *compensation* screens that suppress or cut them off, of which several illustrations are given. In another section a list of yellow, or greenish-yellow dyes, suitable for screens, is given; this list includes mono and bichromates of potash; auramin, picric acid and picrates, especially the calcium salt; tartrazin (which is highly recommended by Miethe); this dye allows some ultra-violet to pass, which may be remedied by the addition of aesculin; cyclamin, for screens used in connection with orthochromatic plates, giving an exaggerated action of the greenish-yellow rays at wave length 560 Angström units.* Extinction curves are given for most of the dyes named. Other dyes, less desirable, are also noticed. Finally the method of preparing screens is elaborately presented. The author considers fluid screens as having very little practical use, except for studio work, and he confines himself to dry screens. He gives practical hints on how to place and mount the screens, the choice of glass, how to coat the glass with dyed gelatin, and in what manner to best do the drying and cementing.



SUNSET ROCK, TENNESSEE.
Photo by Rollins & Linn, Lookout Mountain, Tennessee.

Workers in three-color photography or in the production of three-color transparencies will find much to assist them to a clear understanding of the fundamentals, spectral and pigment colors, screens, their absorptions, methods of staining plates, etc., in the book "Three-Color Photography," by Baron von Hübl, translated into English by Mr. Henry O. Klein, of London.

CAN'T FOOL HIM AGAIN.

I was fooled into subscribing for another printer's journal some time ago, but there is none that can come up to "THE INLAND."—*R. H. Covar, Orangeburg, South Carolina.*

*An Angstrom unit= $\frac{1}{10000000}$ millimeter

Written for THE INLAND PRINTER.

THE STUDY OF ELECTRIC PRINCIPLES SIMPLIFIED.

BY A. STAPLE.

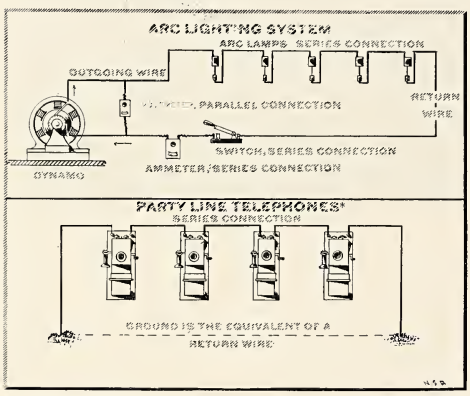
NO. III.— ELECTRIC CIRCUITS.



IN the consideration of electric phenomena one is obliged to recognize the necessity of some *path* for the electric current to traverse; this is called a *circuit*, because the current can only flow in an unbroken circuit or a complete path that returns to the starting point.

Circuits are divided into series and parallel divisions and combinations of these. A series circuit is one in which *all* of the current (amperes) passes through each and every device connected in series (one after the other) within the circuit. The amperes are constant, but the volts or pressure varies directly with the number of devices connected, provided that each device requires the same number of volts to supply the necessary current to operate it.

A parallel circuit is one that has many *separate* circuits looped into each other so that *all* the circuits have common access to the source of current. In such a circuit *all* of the current passes over the main outgoing and incoming wire, but only a *part* of it through each loop. We may also have a combination, or series-parallel connections.



*Sometimes telephones are connected in parallel and are then frequently referred to as "bridging" phones.

FIG. 1.

An exemplification of series circuits is found in arc lamp street lighting; in this the current passes through the first lamp, then the *same* current passes through the second, etc.

A parallel or as it is sometimes called a multiple circuit is exemplified by trolley car systems, incandescent lighting and multiple arc lamps; a series parallel, by the three-wire method of installing two ordinary 110-volt dynamos in which one dynamo is in series with the other.

In the diagrams, Fig. 1 illustrates two kinds of connections, known as series circuits; Fig. 2, a system of parallel wiring, and Fig. 3 illustrates series-parallel circuits.

To recapitulate, in Fig. 1 the current from the dynamo passes, as shown by the arrow, to the first arc lamp, then to the second, the third, etc., and comes back by the return wire, from which it is obvious that *all* of the current must pass through *each* lamp. The switch and ammeter are in series with the lamps and each other; that is, the current must *first* pass through the lamps before it can reach the switch or ammeter, so it successively passes from one device to the one ahead and in its traversing the entire circuit, the *whole* current passes through each lamp, etc.

In Fig. 1 is also shown a voltmeter connected in parallel; in this case this device uses only a very small amount of current independent of the lamps; it is in parallel with them and the dynamo.

The series arc lamps ordinarily require 50 volts. It then follows that it requires 50 volts to send enough current to operate one lamp; a second lamp requires the same number of volts and the same amperes, but there is more to be done to supply two lamps than one alone, hence the dynamo must work at a voltage of 2×50 or 100, but since the current can meet both demands, the same amperes serve both lamps.

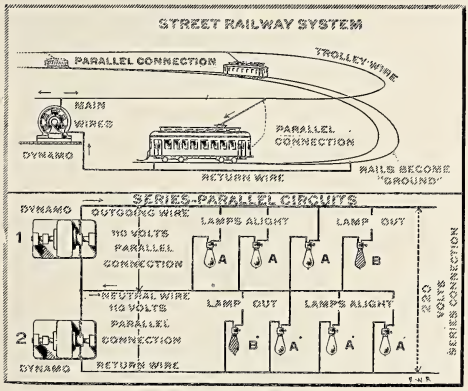
Four lamps are shown, and $4 \times 50 = 200$ is the required volts to maintain them in action. In ordinary use about fifty lamps are run on one series circuit, requiring a pressure of 2,000 volts. The party line telephone circuit shown will now be easily understood.

Fig. 2 shows a parallel circuit which is made up of the well-known trolley system. A dynamo sends out current in the direction of the arrow; as soon as it arrives at the first trolley pole it passes down to the controller in charge of the motorman; this being closed, it then passes to the motors under the car floor and then to the rails, through the car wheels and returns to the dynamo by the return wire which is connected to the rails at fixed distances. If more than one car is in operation, the current from the dynamo passes to the trolley wire as described; but only a *part* of the whole output goes to the first car and another part to the second and yet another to the third. The current required by each car is independent of every other car. The voltage is the same for all the cars because it has but little resistance to overcome in simply traversing the trolley wire.

The series parallel system, shown in Fig. 3, shows two dynamos, 1 and 2, connected to what is also called a three-wire system; one outgoing wire

leads from the dynamo 1 to the lamps, the second dynamo (2) feeds into the first. A return wire comes to the second dynamo, and a neutral wire joins between the two dynamos and serves as a path for the current of either dynamo, hence is called *neutral.*

Suppose only three lamps A to be burning and lamps A^1 to be turned off, the current supplied to lamps A would have to return to dynamo 1 over the neutral wire and dynamo 2 would be running idly because all of the lower set of lamps being turned off there is no path leading to the return wire and dynamo 2. As soon as the lamps A^1 are turned on, then the current is doubled and what passes through the lamps A also passes through lamps A^1, returning to dynamo 2, leaving the neutral wire idle. Suppose now lamp B, shown dark, is turned on, *more* current will now be required for the upper set of lamps than the lower ones, hence the *excess* must return over the neutral wire as no more can pass through the lower set of lamps than they *themselves* require.



FIGS. 2 AND 3.

The lamps A — B are in parallel with each other, as are lamps A^1 — B^1, but the two groups are in series, one group with the other. The two dynamos are in series with each other and with the two groups of lamps.

To summarize: In a series circuit the amperes remain constant and the voltage varies and in a parallel circuit the voltage remains constant and the amperes vary; in a three-wire system (Fig. 3) the voltage remains constant on one side of the neutral, varying only when the other side of the neutral is also used, and then only doubling in value; the amperes vary according to the number of lamps or devices used.

Door bells are ordinarily connected in series, but burglar alarm connections to doors and windows are connected in parallel. If one bell was to be rung from more than one place, the buttons would be said to be in parallel and the bell in series with the battery and a button at the moment it was being pressed.

In series circuits the turning off of any single device instantly makes every other device that is connected in *series* on the same wire inoperative.

In parallel or multiple connection the devices can be turned on and off *independently* of each other, one incandescent lamp without affecting any other lamp.

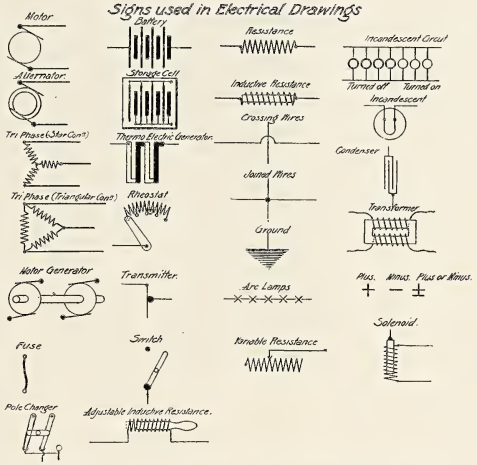


FIG. 4.— UNITED STATES PATENT OFFICE ELECTRICAL DRAWING SIGNS.

The motors which operate printing-presses are connected in parallel with each other so as to make each press independent of every other one.

The + sign is used in sketches and diagrams to show where current leaves a device and the — sign to indicate where the current returns to it.

The ordinary conventional designations for the various kinds of diagrammatic representations of devices and circuits is shown in Fig. 4, which is reproduced from The United States Patent Office rules.

AN EXCELLENT REFERENCE LIBRARY.

I take this opportunity of expressing my appreciation of your valued magazine. When done reading, I get them bound in volumes. They make an excellent reference library for any printer. Most of my knowledge as a "juggler of types" was acquired by a careful perusal of THE INLAND PRINTER.—*G. H. Merlin, Halifax, N. S., Canada.*

LOCAL NEWS.— James Gordon Bennett of Paris Saturdayed in our midst. Mr. Bennett is the proprietor of our esteemed contemporary, the *Herald.* Come again, Jim, when you can stay longer.— *Puck.*



"THE HIGHLAND ROAD."



THE RIVER'S QUIET REACH.



ON THE TENNESSEE.



"THE OLD SWING BRIDGE."

NATURE'S INVITATION.

CORRESPONDENCE

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names — not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

EXTRAVAGANT ECONOMY.

To the Editor: CHICAGO, ILL., May 12, 1906.

The other day a job of postal cards came back to a print-shop because of an error. The printer explained that he had intended to send out proof, but the one overworked errand-boy was out on a long trip, the customer was in a hurry, and a press was standing idle, so he left the responsibility with the proofreader and went ahead.

I do not know how many postal cards there were, but I doubt not enough to pay the wages of another errand-boy for the week at least. And next week he might be paid by the loss on the one or two more jobs which in all probability will be spoiled by a neglect to submit proof to the customer.

I once worked under a foreman whose ever-ready expression of "Let him be responsible" became a byword about the office. But it was a mighty good motto, nevertheless — and that same foreman never, I think, had a job to reprint in the two years I was with him. The customer not only should have the responsibility for correctness of his own copy, but it is his right to see his job before it goes to press, just as he expects to have a suit of clothes fitted to him after it is basted together, before being finished.

The errand-boy is the cheapest necessity about a print-shop — cheaper than compositors, pressmen, presses, power or stock — and most emphatically so if that stock happens to be postal cards, on which there is no discount, even in case lots. Economy at his end of the pay-roll is usually the height of extravagance. E. S. HANSON.

NEWSPAPER WORK IN AN EARTHQUAKE.

To the Editor: OAKLAND, CAL., April 20, 1906.

The writer has participated in newspapermaking under varying conditions, but it remained for Wednesday, April 18, at Oakland, California, to furnish the most peculiar and trying of all of these experiences.

This was the day of the most appalling calamity in the history of the United States, namely, the earthquake of the Pacific coast, which practically destroyed the city of San Francisco and did such enormous damage to other coast cities in its range.

There is no need of details of this calamity; it is sufficient to say that all of the newspapers of Oakland and San Francisco were entirely crippled in one way or another, from the earthquake which threw the writer out of bed at Oakland at 5:13 on Wednesday, April 18.

The average human being is not afraid of what he can see, in a more or less degree, but an unseen power which may destroy at any time strikes terror to the bravest heart. This is what makes this the story of the greatest feat in the annals of newspapermaking.

We judge men by their deeds and actions, and if the subsequent actions of Manager Frank W. Worcester of The Oakland *Herald*, as narrated here, do not prove that he manipulated and directed the greatest piece of newspaper work ever performed in the world, then the writer is not a judge of newspaper work, and he has been actively connected with the profession for about one score years and has had the benefit of a father and grandfather, who were also mixers of paper and ink and were classed as leaders in this line in their day.

Mr. Worcester was awakened, as was everybody else, by the shock, and not stopping to dress, slipped a bath robe over his pajamas, and with the writer, who was stopping at the same hotel, rushed their respective families into the street and placed them safely in a vacant lot. The families being safe, Mr. Worcester's next thought was the newspaper, The Oakland *Herald*, of which he is the directing power. Procuring a milkman's team, the only conveyance in sight, Mr. Worcester, without stopping to dress, was soon on his way to the office, a distance of about two miles.

Upon arrival at the Herald building it was found that everything movable had been thrown to the floor in every room and the place was in an indescribable confusion. The telephones, electricity, gas, water and everything were disconnected through the "quake," and it looked a hopeless task to ever place the plant in condition. Nothing daunted, Mr. Worcester proceeded to the street and accosting every one who came along soon had a force of half a hundred men at work, many to volunteer in the true Western fashion, though their own price for services was what Mr. Worcester proffered.

Many hands made light work and Mr. Worcester was soon in possession of a cleaned plant. Then for power, and by tapping the "Key Route" by a force of twenty men the power was soon in. For water, thirty men and boys were marshaled and plenty of water was soon at hand. In the meantime the Linotype operators, machinists, pressmen and others were busy in the mechanical department, and the editors, reporters, artists, and other employees were at work in their respective places and the whole plant was as busy and systematic as on the regular days of publication.

Now for an edition, the pressmen who were on hand went carefully over the big Goss press, the finest press on the coast, being of the very latest pattern and only a couple of years in the service. A few slight repairs and everything was ready there.

Upstairs the editors were collating the facts brought in by the reporters and soon the entire local field was thoroughly covered. Then for San Francisco — six towboats were soon steaming across the bay and a couple of automobiles were making the run around by land. Six more automobiles were circulating the city of Oakland and all the outlying districts and this was the only means of communication, for all wires were twisted and no connections possible.

The Linotype operators, the ad.-men, the make-up and all were now working swiftly and quietly, and page after page was sent down to the stereotypers and soon eight pages were ready for the press.

First edition out — and of an evening paper at that, and on the street before even the local morning paper and before the San Francisco papers, which could have got across the bay if they had had the foresight to get a towboat or two.

A breathing spell now, and Mr. Worcester addressed his men: "Boys," he said, "I thank you all for this splendid support. We are going to have a strenuous day, and any of you boys that are ill or have any family duties to attend to, I want you to step out. Do not try if you do not feel fit. Further, we are going to have 'quakes' all day, and I want you all to leave the building each time there is a 'quake,' so if it is a bad one no one will be hurt. Now any one ill or with families to look after step out."

Not a man stirred, instead of which was a unanimous

murmur of "We are with you from start to finish." Tears rolled from Mr. Worcester's eyes and in a broken voice he said, "Boys, I thank you." He then turned and went to his office.

Just as he was seated there came a "quake." He did not stir and though he had told every man to leave the building not a man left, and each stayed right in his place.

Everything was now squared away for another edition. The reporters were coming in and the autos were whizzing and soon another edition was ready. Suddenly there was a bustle, and one of the men staggered in weak from running; he was one of the men from the towboats from San Francisco and he had the first and only authentic news from the doomed city. Not being able to secure a conveyance from the landing place he had run three miles to the office.

Soon another edition was out, and then squared away for another, every one working with might and main, with Mr. Worcester directing as a general directs his army. A reporter steps in and says, "Not a paper being published in San Francisco; all of the offices threatened and deserted." "They shall have a paper," responded Mr. Worcester, "we will send them one." He then mapped out what to do and how to do it, and this is how it was done:

Twenty thousand papers were printed, loaded into automobiles, transferred to towboats and then men and boys stepped aboard and soon were steaming toward San Francisco. The papers and the men and boys were landed and inside of one hour all were sold out. The paper caused a sensation; Oakland supplying San Francisco with papers and news! This was reversing the general motion of things and the enterprise of the Oakland *Herald* was loudly praised, despite the despairing surroundings.

All through the day the scenes of activity were many and varied. Several quakes were felt, but not a man left the building. Mr. Worcester was greatly touched by the universal good feeling of the men and freely thanked them while always saying, "Now boys, don't take any chances, for we only live but once." Despite this admonition there was always the answer, "We'll stay with you, no matter what happens" — and they did.

The most harrowing reports came from San Francisco and the fires could be plainly seen from Oakland shores. No one was allowed to land from Oakland at San Francisco, but all the ferries and other conveyances were coming across from the latter place loaded down with passengers.

Every one that could leave the doomed city was doing so and they were met by newsboys from the *Herald*, and every one wanted a paper. All reported that San Francisco was fated.

Night fell and still the work went on, and all through the night the same men worked, many without food, and all without rest or sleep. The morning of the second day dawned and the *Herald* was the only paper with eight pages. The *Call, Chronicle, Examiner*, got a united four-page paper headed as named. The other Oakland papers got out a four-page paper. Again the *Herald* and Mr. Worcester scored. This continued throughout the entire day, extra following extra, and all hands had put in thirty-six hours of continuous labor.

Then came a breathing spell and Mr. Worcester stayed right by the plant, but said, "Now boys, it is off for the present and go to your homes. Thank God, Oakland is safe and has been but slightly damaged in comparison to the other cities. You can all go home." The men demurred at this and a number would not go, but laid down right where they could. Thus the night passed and the work seemed at an end.

Then came a call for help from the *Examiner*, and Mr. Worcester very generously put the entire plant, paper and all at their disposal, and the editions of The Oakland *Herald* and San Francisco *Examiner* are now being printed in The Oakland *Herald* plant.

Without being a participant of an earthquake one can not realize the terror of it. The writer was in the papermaking for the blowing up of the Maine, the explosion of the Bennington and the Galveston flood, the Johnstown horror, and others, but they were as nothing in comparison to papermaking with the ground trembling under foot. He has worked in a building with a fire raging next door, every minute expecting *sauve-qui-peut*, in a flood building in Mississippi while the river rose, in a building in Georgia during a cyclone, but to make a paper while the earth rocked was the latest and positively the worst in his experience.

JAMES SHIELDS MURPHY.

NOTE.— Don't think that anybody could not do what Mr. Worcester did; but the greatest point is, that while all other papers could do it, none of them arose to the emergency, and all of the managers of the San Francisco papers simply did nothing, while the other Oakland managers did but very little in this the greatest news story of the century.

THE TRADE PRESS IN THE EARTHQUAKE.

To the Editor: CHICAGO, ILL., May 12, 1906.

The enclosed was the best we could do for our issue of


MINING AND SCIENTIFIC PRESS

Whole No. 2387.— VOLUME XCII. Number 18. "Science has no enemy save the ignorant." THREE DOLLARS PER ANNUM. SIXTY CENTS. TEN CENTS.

MINING AND SCIENTIFIC PRESS

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BERKELEY, APRIL 21, 1906.

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EDGAR RICKARD ..... Business Manager

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TO OUR READERS

IN face of the calamity that has befallen the community in which we live, our own loss seems small. Our records, our library, the note-books of the editors, the manuscript ready for the printer, and the whole of the plant in our composing room, all lie buried under the ruins of San Francisco. But, owing to the customary precaution observed by two of us, complete copies of the weekly subscription lists had been taken to Berkeley, so that we possess that necessary record. Fortunately, most of the members of our staff live at Berkeley, where the earthquake was less severe and where no conflagration followed in the wake of this terrifying occurrence. As the earthquake occurred at 5:15 A. M., and the fire in San Francisco prevented people on this side of the Bay from reaching their offices, most of us were spared the horror of scenes that bear the memory. We are fortunate, therefore, as compared to many of our fellow citizens. And for other reasons. Our plant has been demolished; but this journal is built on nothing so ephemeral as paper, and on nothing so cheap as machinery; it is based upon the support of many thousand readers and subscribers who are never less likely to withdraw their support than at a time of misfortune. The goodwill of the Mining and Scientific Press is locked up in no safe, confined to no printing room; it cannot be shaken by an earthquake or consumed by fire. And, gentlemen, our friends, there is another something that is not destructible by physical misfortune or financial adversity, and that is the spirit that gives life to the printed word.

T. A. RICKARD,
Berkeley, April 20, 1906. Editor.

TO OUR ADVERTISERS

OUR old offices at 330 Market Street, being in the very center of the most damaged section of San Francisco, have been totally demolished. We have lost our entire mechanical plant, including cuts, half-tones, type and the issue of April 21, which had already been set up; but fortunately, our complete and most recent mailing list has been saved.

We have secured ample offices in the First National Bank Building at Berkeley, which is on the east side of the Bay of San Francisco and close to the terminus of the trans-continental railroads. Through the courtesy of The Standard Publishing Company, we are in possession of proper facilities for printing. The Miehle presses, which will do our work, are new and of the most improved type. We will only be handicapped (for a few issues) by scarcity of paper; the rush of work at the local photo-engraving houses will prevent the use of half-tones with our reading matter, but we have arrangements pending to have this work done at Sacramento, which city was not affected by the earthquake.

We would urge all of our advertisers whose places of business have suffered, to communicate with us at the earliest moment, as our issue of April 28th will afford the best medium for advising their clients the world over of any change of address.

EDGAR RICKARD,
Business Manager.

April 21, and may be worth noticing in your paper. We are now back to our usual fifty-four pages.

L. A. GREENE, *Chicago Manager,*
Mining and Scientific Press.

WANTS HELP TO ORGANIZE.

To the Editor: DECATUR, ILL., May 3, 1906.

The printers here in Decatur need an organization for the promotion of better prices and more harmonious action in the trade. Have you any information that you could give us about some one who could come here and organize them into a Franklin Club or Master Printers' Association, or something of the sort? It is almost impossible for the people here to get together among themselves on account of the amount of jealousy and personal feeling that is



COLLECTION OF FILIPINO HATS AND BOLOS.

sure to exist, although we have made a number of efforts. If you can suggest anything along that line, I would be very glad to hear from you.

W. E. MARQUAM, *Marquam & Co.*

The National League of Printing Plants, the idea suggested by Mr. Putnam Drew, is intended to meet these conditions. It is in effect an extension of the Master Printers' Associations. These associations are doing good work locally, which might by the league plan suggested by Mr. Drew be made of international scope and their usefulness and power for good be thus immensely increased. Mr. Edward F. Hamm, the secretary of the Master Printers' Association, 1214 Monadnock Block, Chicago, in the bulletin of the association under date of May 15, offers these arguments:

SELLING BELOW COST — "Not in business for my health" is a remark ofttimes made by the man in business, but how often does this appear to be an anomalous statement, judging by figures that are presented on some contracts for printing that come to our notice. We can not believe that any one in business, who intends to continue, would knowingly sell his product at less than cost — but is it not a well-known fact that many do? Is there any explanation for this? We think there is. The lack of proper knowledge of costs. How many failures in the printing business can be traced to lack of this knowledge?

MISTAKES IN ESTIMATES — Can any one in business expend time or money to a better advantage than to maintain an accurate cost system, which is at all times his safeguard in estimating and pricing work? To make a success in business, it is not possible to make a good and fair customer who asks no price on his work pay for your own shortcomings where you have estimated too low on work for the customer who only places his work with you owing to a mistake in your estimate. With a proper cost system this would not be necessary.

FAIR PROFITS — Do you think any sane printer would go to a paper house and pay one dollar for a thousand envelopes and in turn sell them to his customer for ninety cents? We think not. In this case he knows by selling at less than one dollar he is losing money, and conducting business on those lines would mean bankruptcy. On the other hand, if his customer wants them printed, and it requires thirty minutes to set and lock up the form, he is at once at a loss to place a price on this item with a correct knowledge of the cost and a price that will net him a fair profit on his work.

LACK OF SYSTEM — Why this condition? It is all due to a lack of system in keeping record of costs and without which any manufacturing business, and particularly the printing business, with its many details and small items of cost entering into each and every job — no matter how large or small — is like a ship without a rudder. If a little more time were devoted to this part of the business, the results would soon be shown in your balance sheet at the end of the month, and we would not be met with the statement of the buyers of printing that there is no limit to the variation of figures they are able to obtain; many times varying one hundred per cent on the same specifications.

Printers have made the statement at different times that certain buyers of printing had confessed that their object in securing a large number of competitive figures from printers was that one of them would be sure to make a mistake, by which they would profit in having their printing done there.

FIGURING TOO CLOSELY.— A printer recently stated that if he did not figure close on work for some of the large buyers, some other printer would, and he would lose out. He, therefore, often quotes at less than cost on some work, expecting to make up on other. Such figuring is demoralizing to the business, by establishing a price in future on that particular work, and it would not be tolerated were there a proper cost system in use in his printing office — then he would not be any more willing to sell his composition at less than cost — knowing it — than he would his stock he buys from the paper house, the cost of which he also knows.

I would be very glad to hear from every printer in Chicago as to what he estimates his cost of composition per hour to be, and which will give further information for another circular on the cost of composition.

The Master Printers' Association invites comparison of costs from all Chicago printers and will gladly furnish information and blanks upon application to

EDWARD F. HAMM, *Secretary,*
1214 Monadnock Block.

The general interest in the plan of the National League of Printing Plants is shown by the large number of printers writing for particulars. In one mail letters came from S. B. Newman & Co., Knoxville, Tennessee; Bowrun-Murray Company, Ashland, Wisconsin, and the Boston Envelope Company, Boston, Massachusetts. It would seem from this that the printers' troubles are confined to no one locality. Mr. Drew has a full description of his plan in preparation and all printers interested will be supplied on request by addressing THE INLAND PRINTER.

WANTS THEM QUICKLY.

I find that, after the lapse of four months in which I have not received a copy of THE INLAND PRINTER, I need it. Thought I could do without it, but find I can not. Have been a subscriber ever since your magazine has been printed. Begin with October, 1905, and fire them along quickly.— *Clarence Johns, Cincinnati, Ohio.*

HOW ONE MAN SUCCEEDED.

I get lots of good out of THE INLAND PRINTER and I think that taking and studying it is probably the reason I now own two nice job-offices and hardly put in a month's apprenticeship in a newspaper office.— *Ernest Hesse, Athens, Ohio.*

Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.

A CASE that came before the Lord Chancellor's Court in London, the other day, was watched with great interest not only by British printers, but by printers' engineers, the latter being, indeed, more affected by the result than the former. The matter was one that had reference to the title of a well-known platen press that is to be found in almost every printing-office in Great Britain, the "Cropper." The action was brought by the Cropper Minerva Machine Company, Ltd., as plaintiff, to prevent Cropper, Charlton & Co., Ltd., and Others, selling platen machines, or advertising the same in such a way as to lead the trade to believe that they were genuine "Croppers," which the defendant company claimed the sole right to make and sell as such. The "Cropper" has an interesting history. In the early sixties Samuel Thacker was in America and saw the "Franklin" platen press, made by Gordon. The principle struck him as an advance on anything in Britain in his time and he thought that its introduction would be profitable. Mr. Thacker was a member of the firm of H. S. Cropper & Co., whose business was the manufacture of lace-making machines, and the construction



THE "BEHEADING STONE," STIRLING, SCOTLAND.

of a piece of mechanism like a platen press was to them easy, and so their manufacture was commenced and the machines put on the market under the title of the "Cropper." For many years the firm held the monopoly of the presses, but gradually other platens were put on the market under other titles — though the printerman called them all "Croppers" and still calls them so, of whatever make they may be. In 1893 the firm of H. S. Cropper & Co. was wound up, it having got into difficulties. H. S. Cropper and the two Thackers purchased the business from the liquidator, and took possession of the original works, thus succeeding to the original firm. Sidney Cropper, a relative, then started making machines under the title of the Cropper Machine Company, but H. S. Cropper and the Thackers obtained an injunction to prevent the use of the word "Cropper," and then the opposition firm styled themselves Charlton, Cropper & Co. In 1905 an injunction was also obtained against that firm to prevent it booming itself as the successor of the original Cropper, and the recent action was to prevent the same firm using the word "Cropper" as applied to their machines. The plaintiff company claimed an exclusive right to the title. After a three days' hearing the judge decided that there was no right in the plaintiffs to the word "Cropper" if used in conjunction with any other word, and the defendants were quite at liberty to call their machines the "Cropper-Charlton." The plaintiff firm, however, were entitled to call their machines "Croppers," and that name, by itself, must not be used by any other makers of platen presses. The plaintiffs' action therefore failed and was dismissed with costs. The costs of the case will be considerable, as the privilege of a fight in the English law courts is an extremely expensive luxury.

AN interesting legal case has just been heard in which the parties were two well known firms of newspaper rotary pressbuilders; The Northern Press & Engineering Company, of South Shields, were the plaintiffs, and R. Hoe & Co., of London and New York, were the defendants. The action was for an infringement of an alleged patent of the plaintiffs by Hoe & Co., and the defense was that the device was in reality originally the invention of the defendant firm, while in any case the plaintiffs could not claim a right to the arrangement upon which they founded their action. The trial of the action lasted five days, when the judge reserved his decision. The judge after a fortnight's delay delivered his judgment, which was in favor of the defendant firm. His lordship held that, having regard to the state of knowledge at the time, the arrangement of parts in the machine required no substantial invention in the sense in which it was used in patent law, and did not furnish subject matter for a patent. All that had been done was to place parts of old and well known machines in their natural order; and in the circumstances he thought that to allow the plaintiffs a monopoly would be little less than absurd. He failed to see any exercise of skill and ingenuity which could properly be described as invention, having regard to what was known before. There had been no infringement by Hoe & Co., the patents were invalid and void for want of subject matter, and the action therefore failed, and must be dismissed with costs.

A NEW use for the Linotype has been found by the Bank of England, in which institution an installation of four machines has been put down for the purpose of addressing the dividend notices that are sent out periodically by the bank. This work has hitherto been done by the clerks, and charged as overtime.

YET another individual connected with paper and print has been returned to the British Parliament in the person of Mr. Franklin Thomassen, the managing proprietor of the new *Daily Tribune*, who has been elected to fill the vacancy for Leicester caused by the retirement of Mr. Broadhurst. Mr. Thomassen polled 10,766 votes while his opponent only scored 7,206, the majority being 3,560. The new M. P. is still on the sunny side of forty, and comes of a family which has played an important part in the fight for the principles of Liberalism and Free Trade, his grandfather having financed the great Cobden and Bright campaigns. He is practically a millionaire and is a Liberal who has known what it was to assault Tory strongholds in the days when such things existed. More recently he has revealed the sincerity and depth of his convictions by

giving to London that progressive newspaper which it had for some time lacked. His election on a thoroughly democratic program sends to the House another of those stalwarts of whom it can never have too many. A majority of 3,560 for a candidate new to the constituency so soon after the most astonishing contest at the general election, is a sign that the country is well satisfied with the new government's action. London newspaper men are quite jubilant over Mr. Thomassen's triumph.

THE annual report of the Printers' Pension and Orphan Asylum Corporation has just been issued and it states that at the close of the working year 300 persons were receiving pensions: 148 men, 148 widows, and four daughters of printers. To this list fifty-two pensioners will be added at the annual meeting. In the statement of accounts it is shown that, notwithstanding the increase in annual payments to pensioners, the council has been able to add to the investments to the extent of $15,000. The capital account of the pension fund now amounts to $310,000. The year has been a record one. The amount received being $57,500, the greatest amount received in one year. The payments amounted to $27,000 and $15,000 have been added to the investments. The pension corporation is now in its seventy-ninth year and is doing a good work for the aged and helpless in the printing trades.

THERE is a class of men, compositors, that hang about the premises of those printers who do the work of the houses of Parliament and the law courts, when in session, on the offchance of getting a few hours' work at night, when a rush is on, or official documents have to be got out quickly. This class of work is nearly always set in pica roman, and hence the men are known as "pica thumpers." The question is being asked why should not the House have its own tame "pica thumpers" and give them steady, regular work? Fancy! The solemn deliberations of the Mother of Parliaments set up by men who live from hand to mouth competing with each other for a job on piecework and having to take a fresh engagement each night! They manage things better in your country, as witness the great State Printery you have for your congressional and other work, which, whatever its abuses, is infinitely better for the workmen than the British slipshod method of employing private firms to do the official work.

PRINTING paper has been superseded in a novelty in printing for the blind which has been brought out by the Braille Printing Company, of Edinburgh, in the form of books made of thin aluminum sheets, instead of paper, embossed with the Braille characters in the usual manner. It is claimed for these books that they are easier to read than paper books, especially by those who have become blind late in life, or those whose fingers are not very sensitive, and an advantage claimed is that the pages can be kept clean by sponging and thus prevent the dissemination of possible infectious bacteria.



GREENOCK, ON THE CLYDE, SCOTLAND.
Noted for its shipbuilding and sugar industries.

THE Annual Dinner of the Institute of Printers and Kindred Trades of the United Kingdom has just come off, at the Gaiety Restaurant, London. The lord mayor and the sheriffs were present and there was much speechifying and scratching of each others' backs. The objects of the institute appear to be mainly social, but there is a benevolent fund for the assistance of the poorer brethren. An endeavor is being made by the Institute to establish a court of arbitration to which any dispute that may occur in the allied trades may be referred.

MANY strange things are witnessed in that "poor and distressful" country Ireland, but perhaps one of the queerest scenes was seen a few nights ago in the busy town of Sligo when a large number of magazines and periodicals, including the Harmsworth publications, *Sunday Companion, Home Chat, The World and His Wife, Answers, London Magazine, Boys' Friend, Boys' Herald,* and a number of others, were burned in the Roman Catholic cathedral

yard, and on the street in front of the cathedral, by order of the missionaries who were conducting nightly services in the cathedral. It seems that a large number of these periodicals were distributed from house to house as specimens; one of the missionaries referred to the matter in the cathedral. He warned the people against reading this literature, and said it was not right for Roman Catholics to read Protestant books. In the middle of the burning of the books the town fire bell was rung in consequence of a slight outbreak of fire in a public house in Wine street, but many people thought it was rung to celebrate the destruction of the condemned periodicals. And this happened in a civilized country in the twentieth century.

SOME disagreement having arisen at the extensive printing-works of the Amalgamated Press (one of the Harmsworth concerns) at Gravesend, it is likely that the premises will be closed. A dispute took place among the employees,



ST. MARGARET'S CHURCH, WESTMINSTER.

one or two men being objected to for non-compliance with trade-union requirements, and the firm, which had practically nothing to do with the origin of the dispute, was put to great inconvenience, and so has given the whole of the employees, numbering over two hundred, a month's dismissal notice. The company will, it is stated, remove back to London. A large majority of the employees are petitioning the company to reconsider its decision as the closing of the works will mean a great loss to Gravesend tradespeople and others.

REGULAR DOSES NECESSARY.

Becoming tired of the uncertainty of getting THE INLAND PRINTER regularly at the news-stands, I enclose $1.50 for six months' subscription. Like doctor's medicine, it must be taken regularly to give best results. Have been a student of your journal for years and always got my money's worth.— *James R. Harris, Menomonie, Wisconsin.*

Written for THE INLAND PRINTER.

AUSTRALIAN NOTES.

BY OUR SPECIAL CORRESPONDENT.

AUSTRALIA is now enjoying most excellent seasons and the incoming tide of prosperity is discernible wherever one may turn. Nature seems to have once again smoothed its wrinkled front, bountiful rain having for the past two years fallen at the most opportune times, the result being that the volume of trade every day materially increases. American exporting houses contemplating extending operations to Australia are assured that they may do so with every measure of success. For a long time past Australia has been subject to much adverse criticism, especially from the press of Great Britain, and most odious comparisons have been made between the Commonwealth and Canada, the latter receiving all the tender caresses from the "Mother Country," while Australia has had to endure the kicks and cuffs.

Just here a few solid facts presented to the American people might cause them to open their eyes and gape in wonderment, more especially after the laudatory article on Canada which appeared in the February number of THE INLAND PRINTER. Australia, compared with Canada, has but two-thirds the number of people, yet our population has increased, decade by decade, up to the present, in a higher ratio than has Canada's. In productivity, Australia is far ahead of Canada, and is likely still more markedly to excel. Of wool we produce annually forty times as much. Of sheep we have thirty times as many. Of cattle we have one-half more; of horses, the same number. Of wheat we produce twenty-six per cent less in actual figures, but per capita as much as Canada. Australian minerals alone are in value about three times the total product of Canadian mines, fisheries and forests added together. Animal products of Australia exceed those of Canada in value by two to one. Our imports are $60,000,000 less than Canada's — our exports are $55,000,000 more; and Australia's banking deposits are considerably larger than Canada's. How is all this for a bump?

WHENEVER a sanitary inspector pays a visit to any Australian newspaper office, which is precious seldom, it is invariably noticed that his attention is generally directed away from the nooks and corners where proofreaders are stowed. It is quite easy to understand this, for it would indeed be hard to discover worse accommodation than that usually allotted to readers. Any kind of poorly lighted and unventilated pig-pen, crowded with men till it resembles Surajah Dowlah's black hole, is thought quite good enough for those who follow one of the most trying of occupations. Some of our largest dailies are notorious sinners in this respect. A reform could easily be carried out if some of those responsible could be sentenced to three months' reading of mining and market reports under the conditions described, with half-a-dozen voices reading different matter at express speed alongside, accompanied by the rattling noise of numerous Linotypes, with a metal-cutting circular saw adding to the babel and helping to draw attention off the proof. Then each time a pedantic subscriber wrote complaining that plesiosauride was spelt with a lower-case "p," or Mpapwangwetza had two hyphens instead of the one that every human encyclopedia knows to be correct, the persons undergoing punishment could be awarded another week for displaying gross carelessness. That would help them to realize how the ordinary reader feels when fined or suspended for similar crimes.

THE tariff commission still continues its labors, and evidence given by manufacturers of printing-ink shows

that to have any chance of making the industry profitable the import duty must be further increased. Mr. Robert Collie, of R. Collie & Co., Melbourne, printers' furnishers, said that unless the duty on rosin oil for use in the manufacture of printing-inks was struck out, his firm would not be able to continue the manufacture of cheap black news ink, but would have to import to do any business in that line. The duty on all printing-inks is twenty-five per cent ad valorem. If they could only have rosin oil admitted free, they would not advocate a higher duty on black news ink, as, if the anomaly were removed, twenty-five per cent on news ink would allow them to compete with the imported article. Mr. Collie asked that the duty on all printing-inks should be a fixed one — so much per pound. That would preclude the possibility of inks being imported at a fictitious value in order to effect a saving in duty. It puzzles one to know how imported ink, after paying twenty-five per cent duty, besides freight and landing charges, can be sold at a price lower than the manufacturer's price in the country in which it was made. An exception was suggested of black news ink invoiced at under 6 cents per pound. There should be a duty of twenty-five per cent ad valorem on this, as at present, but it should be in packages of not less than 112 pounds. Mr. F. T. Wimble, of F. T. Wimble & Co., Sydney, spoke in a somewhat similar strain, but



WHITCHURCH, NEAR EDGWARE.

added that agents representing foreign ink manufacturers are also allowed concessions by special discounts. He said he had been shown an invoice by a newspaper proprietor which quoted ten per cent discount and five per cent deduction as a special export rate toward defraying the cost of duty and freight charges. The price at which many of the bulk lines of printing-inks are sold by importers, says Mr. Wimble, makes him certain that the goods are brought into the Commonwealth and passed at much lower rates than their true value; also, Australian newspaper owners are supplied with imported inks at less cost than some of the London dailies. Continuing, he said the present duty on roller composition of twenty per cent ad valorem should be made a fixed duty of 12 cents per pound. The duty on electrotypes is useless, and to protect the electrotypers there should be a duty of two cents per square inch on all electrotype and stereotype blocks, with a minimum of twenty-four cents per block. There is no duty on type passing into Australia, but Mr. Wimble would like to see one of twenty-five per cent imposed.

WHAT is said to be a record in Australian journalism has been made by the Melbourne *Age*. On a recent Saturday it issued a twenty-four-page paper, each paper containing nine columns, or two hundred and sixteen columns in all. The paper used weighed no less than twenty-eight tons, the largest quantity, it is claimed, ever printed for any single publication of any newspaper in Australia. The quantity of metal used on the Linotype machines was one and one-quarter tons, while the weight of metal used for the stereotype plates was seven tons. In connection with this issue about the most impressive feature was that the advertising columns contained no less than five thousand separate advertisements. In the matter of make-up and advertisement display, the Melbourne *Age* is about the most conservative of the Australian dailies. Scare heads are never seen in its pages, blocks or heavy type do not appear in advertisements, very seldom is there an illustration in the news section, while to an American reader the pages would look as solid as a brick wall. Indeed, nearly all Australian morning papers are produced on similar lines, though some present half-tone blocks, but with very sorry effect. The Brisbane *Courier*, however, is a most noticeable exception, its printing of half-tone blocks on a rotary printing-press being far ahead of any Australian daily or weekly similarly produced. Indeed it would not be egotistical to say that what it places before its readers is not to be excelled in any part of the world. In confirmation of this, Mr. C. Wilton, overseer of the Brisbane *Courier*, will forward to any one who wishes, a copy of his paper; also, he will be glad to explain his process of make-ready and printing.

IT IS not very long ago that a prominent post-card collector said there was not a decently printed Australian post-card on the market — what he did purchase he kept as curiosities, as they were not worth sending away, but now a change has come o'er the scene. Australian craftsmen are producing many fine subjects typical of picturesque Australia and New Zealand. One of the leading exponents of the Australian branch of this industry is the firm of Osboldstone & Attkins, of Melbourne, the quality of their work being quite on a par with anything imported. Recently Mr. Will Attkins severed his connection with this printery, and went to Europe on a health and experience trip. He is now on his way back, and proposes establishing himself in Sydney as a high-class printer, when it is expected that in the way of color printing he will give his contemporaries of the slow-going metropolis something of a shock.

REPORTS are often current that new dailies are to be established in one or more of the Australian capitals, but somehow or other these rumors never materialize, much to the disappointment of those compositors and journalists who are unemployed or who wish to change their sphere of operations. The latest Richmond who is said to be entering the field is the leviathan England journalist, Sir Henry

Harmsworth. He is known for some time to have had his eye on Australia as a land to which to extend his newspaper enterprises. When questioned recently in England by an Australian, he replied that he had no doubt that there was room for a paper of similar character to the London *Daily Mail*, which, as far as one can judge, is a decided replica of the class of newspaper to which the American public is accustomed. Sir Alfred said there was the one difficulty of getting a first-class manager, and he was willing to give $35,000 a year, with a seven-year engagement, to the sort of man he wanted.

TEN years ago, the Sydney *Daily Telegraph* installed the Linotypes, this being the first newspaper in Australia to



PERIVALE CHURCH.

discard hand-setting. The majority of the men who were selected from the case as operators have been working at the machines ever since. Now it is discovered that their eyesight is failing and all sorts of conjectures have been advanced as to the cause. The proprietary called in one of Sydney's leading ophthalmologists to examine the men, report on the conditions under which they worked, and endeavor to ascertain if a remedy could be effected. The eyesight of some was found to be defective, and glasses now adorn their noses, but other results of his investigations are not known. However, the incandescent electric lights attached to each machine have been cast aside, and immense arc lamps, which shed a light as near as possible to daylight, have been hung in several parts of the composing-room. Also, every part of the Linotype machine which was nickel or burnished has been blackened. The operators are satisfied with this departure.

THE necessity of the worker or of the employer is the opportunity for magnanimity.

TECHNICAL OVERTRAINING IN GERMANY.

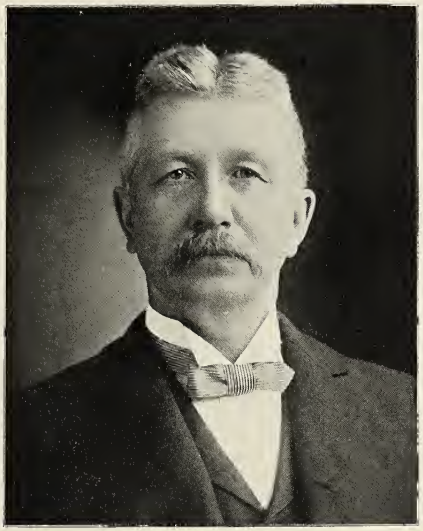
It would appear that the German Empire is rapidly training a class of men for whom it has no employment at fair wages, and for whom the demand does not increase so fast as the supply, and the opinion in Germany seems to be gaining ground that technical education has been carried far beyond the power to utilize it. The American consul at Mannheim says that the question of erecting a school for the building trades in Mannheim being at present under discussion, a prominent constructing engineer has contributed an article to a leading newspaper of that city, in which he endeavors to show that technical education in Germany has gone beyond actual needs. He contrasts the number of those undergoing such training with the number in other professions, and concludes that the ranks of the technically trained are at present much overcrowded. He states that the number of those studying in the technical high schools in Germany in the winter of 1890-91 was 5,432, and in the winter of 1904-5, 15,866, or, in other words, there was an increase of about two hundred per cent. On the other hand the number studying theology in Prussia in the winter of 1887-88 was 2,713, and in the winter of 1903-4 1,005, or a falling off of almost one-third. The number of medical students in Prussia in the summer of 1887 was 5,168, and in the winter of 1903-4, 3,020, a falling off of almost one-half. In the scientific technical branches of the departments of philosophy in the advanced schools which, as shown by experience, prepare a large percentage of technically trained students, the number of such students in the winter of 1901-2 was 1,100, and in the winter of 1903-4, 6,345. It thus appears that there is a rapid increase in the technically trained, that casts into the shade the well-known enormous increase in those trained in legal studies, which in 1899-1900 amounted to 2,925, and in 1903-4 to 6,345. From the latter ranks, also, it should not be overlooked, come many of those holding official positions in industrial undertakings. Similar conditions are to be noted in the middle and lower technical schools. Thus, in the twenty-two schools for the building trades belonging to, or receiving aid from, Prussia, the number of students in the winter of 1902-3 was 4,251, and in the winter of 1903-4, 5,077, an increase of twenty per cent in a single year. For a period of ten years this increase would amount to two hundred per cent. The number of special schools in the metal industries belonging to or supported by Prussia, in 1891 was nine, in the winter of 1903-4 it was nineteen, an increase of one hundred and ten per cent. The number of students in attendance in 1891 was 755, and in the winter of 1903-4 it was 3,010, an increase of three hundred per cent. This number is equaled if not exceeded by those attending private technical schools. In Saxony, which may be looked upon as a kind of rearing-ground for middle-grade technical students, the number of schools for machine construction in 1884 was two, with 524 students. In 1902 there were 6 schools, with 2,687 pupils, an increase of two hundred per cent in schools, and four hundred and ten per cent in pupils. The number of schools for the building trades in 1885 was five, with 469 pupils, and in 1902 it was ten with 1,342 pupils, or an increase of one hundred per cent in schools, and one hundred and eighty-five per cent in pupils. It is apparent that the increased numbers in the technical ranks have gone far beyond the demand — two hundred per cent against about fifty per cent on the average. The consequence of this overproduction in technical resources is a constantly diminishing rate of wages.— *Journal of the Society of Arts, London.*

PERMIT me to express my admiration and appreciation of your practical publication.— *F. M. Kaufman, Flint, Michigan.*

DISCIPLES OF FRANKLIN.

NO. VII.— PETER BARBEAU OLSEN.

PETER BARBEAU OLSEN was born in Christiania, Norway, April 11, 1848, and was educated in the schools of his native town. He arrived at Chicago in 1872 and went to work as a compositor on the *Daily Skandinaven*, with which paper he was connected until 1888, the greater part of the time as literary editor and writer. He was also for a short time city editor of the *Nordvesten*, at St. Paul, Minnesota. Mr. Olsen was employed as map clerk in the Recorder's office at Chicago from 1888 to 1892, when he again resumed newspaper work. From 1895 to 1902 he was employed as clerk in the county map department. He was also elected Representative in the General Assembly, on the Republican ticket, from the old Eleventh (now the Twenty-fifth) Senatorial District in 1898, and



PETER B. OLSEN.

reëlected in 1900. In 1902 Mr. Olsen was elected County Clerk of Cook county, with a plurality of 13,827. He has been twice married and has seven children living.

SAMUEL KING PARKER.

Samuel King Parker was born March 1, 1846, in Gosport, on the south coast of England. In August, 1854, he went with his family to Toronto, Canada, and after a few years' attendance at the Provincial Model School, was entered apprentice in the office of W. C. Chewett & Co., later Copp, Clark & Co. About one year after completing his term Mr. Parker came to Chicago and worked for a number of years with the firm of Church, Goodman & Donnelley, the greater part of the time as stonehand.

Shortly before the fire of 1871, Mr. Parker transferred his labors to the office of Horton & Leonard, subsequently Knight & Leonard, and remained with that firm as leading job compositor until about 1887, when he took employment with the house of Brown, Pettibone & Kelly, afterward P. F. Pettibone & Co., as assistant foreman and proofreader. Being vice-president of the union at the time of the job-printers' strike in 1888, he was required to relinquish his situation and devote all his time, as a member



S. K. PARKER.

of the Executive Committee, to strike matters. The strike benefit fund was placed in his care.

The strike over, P. F. Pettibone & Co. being non-union, Mr. Parker worked for Hornstein Brothers a short time, then at Poole Brothers a few weeks, then went to work for the McCluer Printing Company, where he remained about three years, then went to the proofroom of the Henry O. Shepard Company — his term of service now (1906) reaching fifteen years, the last eight years as head reader.

As a singer, Mr. Parker had an extended experience. He was a member of the choir of the Cathedral of St. James, in Toronto, and of the Cathedral of SS. Peter and Paul, in Chicago. At various times he rendered regular service in the choirs of The Ascension, Grace Church, St. Alban's, The Transfiguration, St. Paul's, in Kenwood, and St. John's, in Irving Park. For ten years he was a member of the Apollo Musical Club.

A SIGN OF PROGRESSIVENESS.

I have observed this principle to hold as true as the ironclad laws of science, that wherever THE INLAND PRINTER is found on the desk of an editor or foreman, there is a progressive and prosperous office. I am scarcely out of an "apprentice" degree, but your magazine has been of inestimable value to me.—*Walter Jack, Pierpont, Ohio.*

CONTAINS BARRELS OF INFORMATION.

The old stand-by (THE INLAND) continues to hold its own, and its make-up and the barrels of information and instruction contained therein must be, and no doubt is, immensely appreciated by all who are fortunate enough to get hold of it.— *Thomas E. Abbott, Pasadena, California.*

ATTEMPTS of newspaper "artists" to picture what would happen to New York if a severe earthquake happened along, remind us forcibly that Gustave Doré was a big man.— *Puck.*

MACHINE COMPOSITION

BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

THE LINOTYPE, 1897. By Frank Evans, 100 pages. $3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.— Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.— By E. J. Barclay. 64 pages. $1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.— By S. Sandison. 36 pages, vest-pocket size. Price, $1.

STUBBS' MANUAL.— By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, $1.

CORRECT KEYBOARD FINGERING.— By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FASCIMILE LINOTYPE KEYBOARD.— An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HISTORY OF COMPOSING MACHINES.— By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record — 1822 — down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines — Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, $3; cloth, $2; postpaid.

THE MECHANISM OF THE LINOTYPE.— By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Vise-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, $2, postpaid.

HAIR-LINES.— C. P. P. Co., Oshkosh, Wisconsin: "Some days ago we sent you sample of some matrices and a printed sheet of eleven-point. The presence of hair-lines in the printed sheet caused us to submit these to you, for this reason: the matrices are not old, being in use hardly two years, and then only off and on with no constant usage. Of course we realize that sooner or later we will have to purchase a new set, but before doing this it occurs to us that perhaps you can advise us some way that will prolong the life of this set. In your opinion what caused the breaking-down of the wall of these matrices?" *Answer.*— We have carefully examined the matrices and find that in every instance they are battered on the right-hand side, showing that they receive a blow from the incoming matrix when the line is being assembled. You will notice the thick matrices have the left-hand side of the lower ear beveled away to prevent this battering. However, this beveling is not carried on the thinner matrices and the result is the destruction of matrices which they strike. It may be that you can obviate this trouble to some extent by so inclining the assembler rails and chute spring as to cause the incoming matrix to strike the assembled line at a higher point on the matrix. A new star-wheel would assist, and the proper adjustment of the assembler brake would prevent the line rebounding and the incoming matrix striking the matrix seat of the previous one.

CLOGGED METAL-POT.— F. T. H., Clinton, Iowa, writes: "We have a machine here with one of the inlet holes of the well stopped up. The operator, who also takes care of it, says it has always been in this condition. Could it be possible that this hole was not drilled all the way through originally? It seems to be so solid that it is impossible to push a bent rod through it. Would you advise the procuring of a drill that could be placed in the well, after the plunger is removed and the metal dipped out, so as to drill this hole through? The plunger on this machine incessantly sticks, generally after running a couple of hours, and must be cleaned as often as four and five times a day." *Answer.*— Regarding the hole in the well being stopped up, if this were the case, no metal would enter and you could not possibly cast a slug. It may be partially closed, however, and if you dip all the metal out of the pot and leave it heated up, you can use a bent wire with a square end and melt a piece of tallow in the well and scrape the hole in that way to clear out the oxid. If the plunger sticks always, it must be because your metal is very dirty, and we would advise you to procure the metal flux sold by the Linotype Company and clean the metal regularly with it.

SUCCESSFUL GRADUATES.— Charles E. Zahn, Marinette, Wisconsin, a recent graduate of the Inland Printer Technical School, writes: "Since coming here in October I have had a very satisfactory time with regard to the machine. Of course I was scared half to death to think of taking a double-decker, but being on the night shift, when no one but another operator was present, I felt easier. The machine was O. K., with the exception of transfer of spacebands, which gave a great deal of trouble and had since the machine was first installed. The spacebands seemed to swing too freely, causing them to squabble just as they entered the spaceband box. A little time ago I heard of a remedy which I applied — the putting of a strip of leather in the intermediate channel, just allowing the bottom of spacebands to barely touch. This has been very effective, for we have had no trouble since. It saves a great amount of time and keeps a man from losing chances for heaven (which, with printers, are scarce enough at best). We have had no trouble to amount to much. Once or twice we have had to stop and think a little bit hard, but finally managed to 'come out of it.' Only recently we were troubled with back squirts for about two days. I finally tested the lock-up of the pot and saw it was away off and so brought the pot forward where she stood away. This ran along O. K. for a day, when she seemed to be giving the same trouble, and I found that the jam-nuts had worked loose. At present it is running like a charm. About two evenings ago I got a back squirt that was a flood. It was a daisy. I cleaned it all up and there being no apparent cause other than that it 'just happened,' I went ahead and the same thing occurred again. I gave it one more trial and then began to look for the trouble. I lowered the vise, pulled mold forward and examined back of it, as well as mouthpiece. At the last vent on a thirteen slug I found a hard piece of metal wedged in the vent about

as large as a dull pencil point — hard as a rock. I removed it, wiped off mouthpiece and back of mold-disk and locked it up and went ahead with no further trouble. How this bit of metal got there, I haven't figured out. Minor troubles have been encountered of course, but nothing which has caused us to lose sleep. Every man in the Twin Cities is a 'school' man. We are not the fastest men on earth, but we are holding our jobs, which gives a certain amount of satisfaction."

TROUBLE WITH THE GAS GOVERNOR.— T. A. L. L., Flint, Michigan, writes: "(1) The machine I am working here gives me a great deal of trouble with the gas governor. Some time ago, upon examining the pressure governor, I found it was loaded down with old slugs which were binding it down at the sides. I made a weight for it, which allows a medium flow of gas at 6:30 A.M. That seems to work most mornings up till about 9 o'clock, when I have to use two or three little iron washers to make weight enough to give a sufficient flow of gas. It seems to me it should not need this kind of regulation, as the float moves up and down quite freely under pressure of the finger. The above may have some effect on the machine governor, which causes me any amount of bother every hour of the day. The machine is set to a thirteen-em ten-point slug. The plunger is somewhat loose in the well. The machine governor is of the kind that has the plug for raising and lowering the mercury and has a 'V' cut in the tube. Now, if I have a fair flow of gas in the morning and adjust the main-pipe governor so that it gives a fair flow, and also set the machine governor, it will work for an hour, or a little longer, when I have to pull out the plug and sometimes add weights to the main governor float. In the course of the next hour the plug has to come out farther. About 10 o'clock I have to reverse the action on the plug, shoving it down. From noon until I quit at 3, I have to keep at it frequently to prevent the metal from getting too hot or getting too cold. An operator-machinist in this place has suggested that I file away the 'V' in the tube. Do you think that will remedy it? He says the mercury has too far to rise and fall to make the necessary change in flow of gas, so that it is heated or cooled off quicker than the gas is regulated. I have tried all this week leaving the heaviest necessary weight on the main governor, but it has not fixed the trouble. (2) Some time ago I filed down the edge of the stopping pawl, which had become rounded in some way. The machine was making double revolutions, as the curved edge of the pawl would not catch on the stop lever. I filed a quarter of an inch or more off the pawl and thought it might have some injurious effect on the machine. In your answer you said it must be an old-style hook pawl, as the new style would not get out of order and would not permit a double revolution. But it is a new-style pawl, though I can't tell how it got so worn." *Answer.*— (1) Perhaps your difficulty with the governor may be overcome by adjusting it so that when you first light up the machine in the morning you get a full flow of gas without violent blowing. If you can not get this flow without weighting the float so it rests on the bottom, you must take the governor apart and lower the valve on the stem. Do not file the "V" cut in the machine governor, as when you get the pressure governor regulated you will have no trouble in adjusting the machine governor. It may be advisable to take the machine governor off of the machine and pour the mercury out and remove all dirt from it. After you have replaced the governor, perhaps the presence of air bubbles in the mercury will cause it to act in an erratic manner for a few hours. Be sure and have enough mercury in the governor to control the flow of gas when you push the stem inward. (2) Regarding the stopping pawl, filing off the top of it could not cause any trouble. It will merely necessitate the readjustment of the screw between the two parts of the pawl to throw the upper part of the stopping pawl that much higher.

WORKING UNDER DISADVANTAGES.— A Linotype operator writes the following communication. It is to be regretted that the conditions stated are all too prevalent. "The writer was privileged to learn the mechanism and operation of the Linotype under a first-class machinist-operator — one who was well aware of the fact that the machine must be kept in first-class condition at all times in order to obtain the best results. One of the very first statements made (and one which afterward proved its veracity) was that the Linotype when shipped from the factory is in good working order; that all adjustments have been made by competent machinists, and that if ordinary care and judgment are used in erecting a machine, it will perform its work without a general filing, driving or forcing of various parts. I was also informed that if the machine stopped while making a revolution, a few moments spent in observation and examination would ultimately prove more satisfactory than to begin changing adjustments under the illusion that the machine had suddenly gotten out of adjustment. I was also told that if I would spend about fifteen or twenty minutes each day in brushing the dirt off the plunger, cleaning the cams and the friction clutch I would be rewarded with few break-downs or tie-ups at critical times. One day a situation on a daily sheet in a small town offered itself. I accepted. The plant consisted of two machines — a single-magazine machine of ancient model, and a double-decker — said to be in first-class condition, being only about a year old. The first line I sent up stopped the distributor; likewise the next — and several more. By inquiry I learned that my predecessor had had some little trouble with the distributor. Some 'expert' had filed off the end of the second



E. T. SCHEERER.



FRANK O'NEAL.



FRED. S. WALKER.



JOHN RUF, JR.

RECENT GRADUATES, MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

elevator bar so the matrices would shift easily. I found that a drop of oil in the track of the shifter remedied the difficulty. The clutch had not been cleaned nor fitted with new leathers for many moons. The oil had hardened upon the joints of the clutch until it looked something like soft-soap. The lever which shifted the keyrods from one magazine to the other had long since been placed upon the retired list. A machinist from the Mergenthaler Company spent four days upon this machine before it was in good running order. Such was my first experience with a machine 'in first-class condition.' At another time I accepted a position on a night shift, having been previously informed that 'although there was no machinist with the machines (three in number) at night, one of the operators of that shift could make the ordinary repairs necessary.' I found that the matrix trays under the distributor screws had a generous supply of bent matrices, while the floor beneath was quite thickly strewn with others. The cams and parts of the machine adjoining the metal-pot at first appearance seemed to be covered with silver leaf, but closer investigation showed it to be only splashes of metal. While some of the keys required several taps to get a response, others were more generous and gave forth the contents of their channels at first call. A squirt soon betrayed the fact that the lock-up was imperfect, and I was continually reminded of this fact by flakes of metal that had adhered to the spacebands falling upon the keyboard. The majority of the spacebands had been bent more or less, and straightened in a very indifferent manner, and, as a result, each band gathered quite a bit of metal during a run. Upon asking where I could get some graphite to clean the bands with, I was informed that they did not use graphite; they 'just wiped them off with an oily rag.' To speak generally, the machines were in a very bad condition, and, as a result, the operator spent from one to three hours of his run in cleaning up squirts and patching up break-downs. Each operator was interested in the welfare of the machine only while he was operating it. The operator following him could look out for himself. With such conditions prevalent, what could be expected in the way of an output? And how could an employer expect to hold a first-class man on such a machine? Owing to circumstances, I remained in this office three months, and within that time several different operators sat at these machines. Some remained a day, some longer. The inefficient were discharged; competent operators would not work long under such conditions. Perhaps there are many more offices that come in this class. It is to be regretted that the ordinary employer or foreman has so little practical knowledge of the Linotype. When rushed to get out their work, many of them will place any one on the machine. The result is usually that it takes two or three hours of the time of a $20-a-week man to repair the damage done. In the ordinary office beginners are expensive help. In offices where corrections are made at irregular intervals, and where the machine has a variety of faces of type, there should be a small font of type like each Linotype face. It not only consumes much of an operator's time to change his machine for corrections (many times only one or two lines), but it is detrimental to his speed."

TO THOSE who do not realize to what extent the Linotype machine can be utilized in the production of high-grade book and job work, the thirty-two-page booklet just issued by the Mergenthaler Linotype Company will be a revelation. The University Press, of Cambridge, Massachusetts, are the printers and have maintained the high standard of their productions. The wide range of work possible with the Linotype is strikingly shown by examples including handsome book, magazine and catalogue pages printed on laid paper and enameled stock, in English, Greek, German and Hebrew; tabular work showing examples of the Rogers system; mixed composition possibilities of the double-magazine Linotype, and specimens of mathematical and directory composition. The showing of jobwork done on the Linotype discloses possibilities in this direction in the production of simple and tasty business cards, letter-heads, tickets and menus. Stock suitable to each specimen has been judiciously chosen and the booklet is one of which the Mergenthaler Company and the Cambridge Press may justly be proud.

RECENT PATENTS ON TYPESETTING MACHINERY.

Typesetting Machine.— W. J. Ennisson, New York city, assignor to the Unitype Company, Manchester, Connecticut. Filed April 18, 1902. Issued March 13, 1906. No. 814,681.

Electromagnetic Device for Distributing Machines.— O. G. C. Schmitt, Frankfort-on-the-Main, Germany, assignor to Wagner & Brand, Frankfort-on-the-Main, Germany. Filed May 20, 1904. Issued March 20, 1906. No. 815,748.

Vise Jaw.— R. M. Bedell, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed September 12, 1905. Issued April 3, 1906. No. 816,841.

Linotype Magazine.— P. T. Dodge, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed June 5, 1905. Issued April 3, 1906. No. 816,849.

Linotype Vise Jaw.— D. S. Kennedy, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed December 9, 1905. Issued April 10, 1906. No. 817,646.

Assembling Device.— C. L. Grohmann, New York city, assignor to Mergenthaler Linotype Company, New York city. Filed October 21, 1905. Issued April 17, 1906. No. 818,243.

Pot-Mouth Wiper.— M. W. Morehouse, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed December 11, 1905. Issued April 17, 1906. No. 818,274.

Trimming Knife.— J. B. Allen, Detroit, Michigan. Filed June 6, 1903. Issued May 1, 1906. No. 819,034.

WORTH MANY TIMES THE PRICE.

Your journal is worth many times what you ask for it, and I always hail with delight its arrival. Many good things are found in THE INLAND PRINTER each month that are not to be seen in any other paper of its kind. I could not get along without it.— *F. W. Kille, Deming, New Mexico.*

ARTISTIC AND LITERARY WORTH.

THE INLAND PRINTER is not only a trades journal of indispensable value, but is a publication worthy of every praise from its artistic and literary worth.— *Gaines S. Dobbins, Clinton, Missouri.*

THICK paper can be made transparent for tracing, for securing register in color forms on the stone, for marking out cut overlays on the back of the sheet, etc., by dampening the stock with pure distilled benzin where needed. A carbon sheet is also used in marking registers, or, as a substitute for the carbon, a sheet of paper inked by passing slowly between the ink rollers will be found economical.

PRESSROOM

BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.— See Process Engraving.

PRESSWORK.— By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, $1.50.

THE HARMONIZER.— By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, $3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.— By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.— Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

PRACTICAL GUIDE TO EMBOSSING.— By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.— By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

SUITABLE INKS FOR BUTTER WRAPPERS.—R. D., Baltimore, Maryland, writes: "Will you kindly publish in the columns of THE INLAND PRINTER what kind of inks to use for best results when printing butter wrappers?" *Answer.* — Inks suitable for printing on glazed or oiled finished paper should be soft, yet quick-drying. These can be obtained from any reputable inkmaker by explaining that they are to be used on stock of that nature. Use hard packing and carry a fairly strong impression for best results.

HOW TO MAKE WHITE INK PRINT WHITE.—J. N. B., Indianapolis, Indiana, writes: "Will you kindly tell me how to make white ink print white; such as is used on dark cover-papers?" *Answer.*— There should not be any difficulty in getting fairly good white if regular cover inks are used. In working white ink on cover-paper, it is advisable to carry as much color as the face of the form will permit and not fill up. The second impression (and this is essential to secure best results) should not be applied until the first color is dry. Do not reduce cover inks if possible to distribute without reducing. When it is necessary to reduce them, use a soft ink as a reducing medium instead of varnish or other materials.

TOO MUCH IMPRESSION ON VIGNETTED CUTS.— M. S. Ptg. Co., Indiana, Pennsylvania, writes: "We enclose herewith a few impressions of a vignetted buggy cut which came into our office recently. We put it on a large press and it printed fine, but that nasty dark line appeared at the bottom edge. We were running three descriptive lines at the bottom and we took them out, cut away all the tympan and the result is as you see on the sample. Should two forms be made of a job like this?" *Answer.*— There is too much impression on the specimen submitted. Cuts of this nature require a very light pressure to print them successfully. In fact, the high lights should be slightly broken when the job is started. It is not necessary to make two forms of a job of this nature when the type and cuts are run in the same color.

METHOD OF UNDERLAYING HALF-TONE CUTS.— H. J. T., White River Junction, Vermont: "Which is the correct way to make ready a half-tone — by underlaying the plate and finishing by overlaying, or to do make-ready on the bottom of a wood base? My employer puts from two to four different thicknesses of tissue on the bottom of the base, providing it is low. Supposing the subject to be a cut of a human face, low in a spot on one side of the head. He puts a patch on the bottom of the face to bring that up, and I do not agree with him. I say it has only the effect of bringing up the whole cut and making a rocking base. Will you tell me which is right?" *Answer.*— Considerable judgment should be used when applying underlays, and no attempt should be made toward detail work at the bottom of a mounted plate, as this will only tend to make the plate rock. When a cut is too low to receive a proper inking, it should be brought up flat to type high and the make-ready finished by means of overlaying. To place tissue-paper at



MONUMENT TO SIR WILLIAM WALLACE, THE SCOTTISH PATRIOT, ON THE ABBEY CRAIG, NEAR STIRLING, SCOTLAND.

the bottom of a block and expect it to locally affect the face of the cut is erroneous and a waste of time. Quite frequently cuts come to the pressroom in such a poor condition that a mark-out underlay is absolutely necessary in order to obtain a proper impression. But these should be placed between the plate and block and such weak spots as you speak of can be easily built up by this method.

Adjustment of the Cylinder of Printing-presses.— One of the greatest obstacles to good presswork is the improper adjustment of the cylinder to the bearers. Not infrequently presses are run from day to day with the cylinder riding the type and the cuts — possibly a lead or more off the bearers. This invariably shortens the life of type and vignetted half-tones. Even though the overlay for a form of vignetted cuts may be deftly cut — to the extent of infinitesimal blending of the edges in the first one or two thousand impressions — it will not be long before defined outlines will appear in the margins. The vignette hammer — a destructive tool — was invented by a theoretical pressman in an endeavor to furnish a remedy for flattened edges; but the practical man will look for the causes of these blemishes and correct them by other methods. In most cases where the trouble can not be traced to the make-ready, the fault lies in the improper adjustment of the cylinder to the bearers. The finished journeyman will test the height of the impression on his presses at least once every three months. This should be done also before starting long runs on extra heavy forms,



"AN ARMFUL OF JOY."

by means of the pressman's type-high gage. This is a very necessary tool in the pressroom and it is the only practical thing with which to ascertain the height of the impression with positiveness. There is a long-handled tool of this kind with which this work may be done easily and quickly. Before beginning this work of adjustment, all dirt and grease should be first removed from the rim of the cylinder or cylinder bearers and from the press bed and bed bearers. Move the press to the back center and remove the screws from the bearers which are accessible from the rear of the press. Then run the press to the front center and remove the remaining screws. This done, the press should be moved to the back center to take off the bearers. Clean the bed thoroughly where the bearers lie and then revolve the cylinder forward to the center of the bed, with the cylinder down, as if to take an impression. The height of the cylinder is determined at this point by placing the type-high gage between the bed and the cylinder bearers. Before going farther into the adjustment of the press, it may be well to say that all machines do not have the same impression mechanism, and on some presses no attention need be given to the steady screws under the cylinder boxes; or to the "jackscrews," as they are called in the pressroom. If the cylinder is too high, loosen these screws and lower them out of the way, and then loosen the check nuts on the lifting rods and bring the cylinder down — slowly at first — on one side and then on the other. Test the height with the type-high gage during each stage of the adjustment. When the cylinder is just type-high, be sure that the check-nuts are tight, and then proceed to raise the steady screws to the cylinder boxes. These screws should be set snugly, but do not force them up. It is essential to test the height once more before moving the cylinder. Exercise great care to maintain a uniform height between press bearers and cylinder bearers on both sides of the press. After the press has been thoroughly overhauled in this manner, it is further necessary to examine the bed bearers to be certain that they are type-high and free from low places. This should be done by placing the type-high gage over the bearers and by moving it slowly from one end to the other. The gage should fit snugly the entire length of the printing stroke. It often occurs that the bearers are worn low. In these cases a strip of manila paper, such as is used for draw-sheets, should be placed under them — enough to bring them up type-high. Use great care in cutting the pattern of this underlay strip. It must be of full width, with holes cut to conform with the screw holes in the bearer. To do this properly, after the paper has been cut to the correct size, lay the sheet over the bottom of the bearer and make a transfer of the screw holes by rubbing the thumb over them. Replace the bearer with its underlay cut, as described, and screw it down firmly. A practice that is most damaging to vignetted cuts, type and bearers, consists of crowding the capacity of the bed with forms that are too large. Cuts are often locked on the bed of the press without a chase to accommodate an extra large sheet. The rear ends of bearers in all presses are reduced slightly in height, and in some presses both ends of bearers are reduced, so that the cylinder is lifted gradually upon them. This clearance also affords freedom of action when the bed reverses. When a form crowds the rear of the bed, the cylinder rests upon the form at this point with its entire weight. It is impossible to preserve the delicate edges of vignetted cuts under these circumstances.

A Suggested Reform for Inkmakers.— G. C. G., San Francisco, writes: "Printers' ink, being of a fluid nature, its mechanical action, or working property, varies under different climatic and atmospheric conditions, same conditions also affecting the proper working of press rollers; the resulting combination causing many perplexing difficulties for the pressman. Hence, an ink being right and giving good results in one section of the country may prove unsatisfactory elsewhere as taken from the can, and impossible to work unless doped. It is then usually up to the pressman to incorporate the proper dope to make the ink work. The writer has no accurate knowledge of the various formulas of different inkmakers, but he has reason to believe that while the basic pigments may be the same, the oil, varnish, dryer, etc., vary more or less. He has found that Jones's ink, for instance, will stand a given quantity of boiled oil, which, if used in Smith's ink, would kill it. It is the practice of the writer to work his inks as taken from

the can whenever possible, believing that the inkmaker knows his business, but there are times when the ink resembles rubber and obviously requires treatment in order to work it. The treatment may consist of heating the pressroom and the machine, or doping the ink, or perhaps both. If one has no facilities for heating up, and the nearest inkhouse one hundred miles away and the job must be out, the doping must be commenced right then and there; but we are often more or less in the dark as to what best suits the ink we are working with, unless we have discovered this by previous experience. The point the writer wishes to make is, that there is not, so far as he knows, any one reducer, or dryer, which is just right for everybody's ink. Hence, it is thought that if each inkmaker would specify upon the label of the can the proper reducer and dryer for that particular ink, and the limit of safety in using them, considerable time, worry and spoiled work might be avoided. It seems evident to the writer that the adoption of his suggestion would prove mutually advantageous to inkmakers, pressmen and employers."

SINCE the sale of the extensive plant of the Crowell Publishing Company, Springfield, Ohio, to a New York syndicate, the pressroom equipment, one of the finest and largest in the country, has been changed by substituting rotary web presses for the flat-beds. It is the intention of the new owners to print all of the 1,200,000 a month circulation of their *Woman's Home Companion* and *Farm and Fireside* on rotary presses hereafter, with the exception of the covers of the magazine, which require flat-beds.

MICKY INDORSES SPELLING REFORM.

I've ben calld down a heep uv times sens I've ben at the kase,
An wonce I told that proofroom man I'd like to smash his face.
He sez that I kant spel a bit, er do mutch elce beside,
An that my proofs look like I set um frum a kase awl pide.
But enny how, I spel my woids the way tha ar pronounst,
An if that don't sho comon sence I hope I may be bounst.
I'm glad that Andru Karnegee haz sided in wit me,
An got a lot uv kollige profs to sa that tha agre;
It pruves owr proofreader is rong, and me exackly rite,
An if he insults me agen tha'll surely be a fite.
He sez that "tung" is alwaz spelt "t-o-n-g-u-e";
Tha haint no kind uv sence in that az enny won kin se;
Fer then "l-o-n-g-u-e" wood be korreckt fer "lung,"
An such like idiotic waze fer woids like "bung" an "stung."
Tha 's lots uv woids, az yous awl no, aint spelt with enny sence;
I'll try to tell yous sum uv em — the list tho iz immens.
"L-e-a-d" is bothersum; wot iz it, "leed" or "led?"
An then "r-e-a-d" is bad; les make it "reed" and "red."
An thare is "d-o-u-g-h"; tha tel me it spels "doe,"
But say that "t-o-u-g-h" spels "tuf" insted uv "toe."
An "l-a-u-g-h" tha say 's the rite way to spel "laf";
If that iz so how iz it that "c-a-l-f" spels "caf?"
An woids like "rain" an "rein" an "reign" — les spel em awl the same;
'T wood show good sence to do it in this heer fonetic game.
Then if it 's "box" wy haint it "sox"; kin enny body tel?
An then thare's "might" an also "mite"— say, wot a way to spel!
I'm jest agoing fer to rite to Andru Karnegee
An tel him hiz reformin' skeem wuz fust thot uv by me.
I spoze he 'll say that I'm the won for president, you no,
Uv that fonetik spellin klub hiz munny wil make go.
I bet we bring about reforms far-reechin an immens;
I'll make that proofroom boss uv ourn look wors'n thirty sence;
Fer wen he sees it's me that's rite an him the won that's rong,
To show him whare he gits off at wunt tak me very long.
An wen the boss finds out that I've reformed the spellin-book,
He'll make me proofroom foreman sure, er elce I'm much mistook.

— *Monotypit.*

WORTH ITS WEIGHT IN GOLD.

I have purchased THE INLAND PRINTER for a number of years and could not be without it. It is worth its weight in gold to all printers.— *W. J. Trembath, Plainfield, New Jersey.*

J. DUNCAN GLEASON.

In the January, 1897, issue of THE INLAND PRINTER, on page 442, was printed a little sketch regarding Mr. J. Duncan Gleason, a young artist of Los Angeles, then fourteen years old. THE INLAND PRINTER predicted for the young man a prosperous future; and we learn that



J. DUNCAN GLEASON.

after having made a sketch for the San Pedro breakwater, he is now at Manzanillo, Mexico, having been employed by the Harbor Commissioners of that country to make a similar sketch for the reconstruction of the harbor at that place.

AS A reducer, dryer and glosser, this recipe has proved valuable: Copal varnish, sweet oil, balsam copaiba, each 3 oz. Mix thoroughly and let stand for forty-eight hours. Use six to ten drops on the disk for one thousand business cards; other jobs in proportion.— *Printer's Register.*

DECIMAL weights and measures are in order for Uncle Sam after July 1, 1908, according to Dr. A. G. Bell, who has pointed out that all civilized countries with the exception of the United States and Britain and her colonies have adopted the simpler and more scientific decimal system. By reference to the decimal system of coinage, Doctor Bell has provided convincing instances of the simplification possible with it in the conversion of units, and explained that the United States, when it changed from the old system of pounds, shillings and pence to dollars and cents did not adopt the metric system of weights and measures because the latter, as we know it, did not appear until after the American coinage act of 1792. The facts that our whole system of arithmetic is decimal, that no difficulty whatever is experienced by ordinary workmen in the use of the metric system — provided there is no question of converting their measurements, and that the use of the metric system need not mean the use of new tools — were all clearly explained.

NEWSPAPER WORK

BY O. F. BYXBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Byxbee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLEN'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

STARTING A PRINTING-OFFICE.—By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, $1.50, postpaid.

GAINING A CIRCULATION.—A book of 60 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, 50 cents, postpaid.

ESTABLISHING A NEWSPAPER.— By O. F. Byxbee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, 50 cents.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, $3.50, prepaid.

PRACTICAL JOURNALISM.— By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, $1.37, postpaid.

AD. COMPOSITION.— I am glad to criticize ad. composition where the ads. are submitted in suitable condition for reproduction, but where they come to me rolled and creased to such an extent as to not only make reproduction impossible, but to also make it difficult to determine what the ad. would look like when printed on a flat surface, it is then of course impossible to aid any compositor. To secure attention specimens must be mailed flat. The best ads. this month came from Lynn G. Goodnough, of Cornwall-on-Hudson, New York, and R. F. Harris, of the High point (N. C.) *Enterprise*. The latter is inclined to use a little too many heavy rules for underscoring and ornamentation, which frequently overshadows the display and weakens the effect of the ad.

NEWSPAPER CRITICISMS.— The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Auburn (Ky.) *Advocate*.— The italic display you are using in your advertisements is not suitable for newspaper work, neither does it make good heads. The extra condensed is also a poor letter for heads and is not prominent enough for the body letter. In many of the advertisements the body type selected is too large for the display.

Cayes & Turner, Martin, Texas.— The *Hall-Moody Herald* is a good piece of work throughout, although ornaments are a little heavy for the size of page. The display in the advertisement in the Hall-Moody Institute is overshadowed by the rule used for panels.

Wyoming (Ill.) *Messenger*.— Publisher's announcement should be set in a size smaller type than the body of the paper.

Live Coals, Royston, Georgia.— It is a bad practice to double lead the last few lines of columns to make them long enough. The column length should be equal to a certain number of lines without extra leads, and extra leads in broken columns should be placed between the articles.

Republic (Mo.) *Monitor*.— The first two double rules on the first page should be run with the heavy line at the top. Many of the column rules do not show.

Alcester (S. D.) *Union*.— There are three different styles of rules dividing the articles on your first page. One would be sufficient, and it would be better to select the plain one.

RESULT OF CONTEST NO. 19.—THE INLAND PRINTER'S last ad.-setting contest, No. 19, was one of the most successful yet conducted, 242 specimens being submitted by 191 contestants. It was unusual also in that there were practically no freak ads. or strained effects, almost every specimen being a good sensible ad., at least so far as choice of type and rule was concerned. The usual custom of allowing the contestants themselves to act as judges was followed, three points being allowed each ad. selected for first place, two points for second, and one point for third. The list of contestants is too long to give in detail the selections made, but the result and the names and addresses of the leading twenty-five compositors are given below:

Specimen No.		Points.
1	85 Michael Edmeyer, Cannon Falls, Minn.	81
2	202 Frank J. Welf, Denver.	59
3	146 Fred R. Butters, Boston.	46
4	113 A. E. Schneider, Galesburg, Ill.	41
5	38 Warren S. Dressler, Philadelphia.	40
6	37 Warren S. Dressler, Philadelphia.	39
7	176 Frank Kelsey, Mason City, Iowa.	39
8	2 F. J. Bloomquist, Kane, Pa.	32
9	15 William P. Pierret, Muscatine, Iowa.	31
10	181 Arthur W. Baird, Pittsburg.	28
11	170 Louis C. Dietrich, Pottsville, Pa.	25
12	127 A. G. Overton, Mason City, Iowa.	24
13	182 Arthur W. Baird, Pittsburg.	21
14	190 O. Proudfoot, Emporium, Pa.	18
15	64 Orra Y. Cleveland, Geneva, N. Y.	17
16	154 Winfred A. Woodis, Worcester, Mass.	17
17	17 W. B. Mayes, Whitney, Texas.	16
18	163 Wayne S. Shantz, Philadelphia.	16
19	31 H. Irving Harvey, Grand Rapids, Mich.	15
20	116 C. H. Bowden, Augusta, Maine.	15
21	145 Eric Peterson, Alta, Iowa.	15
22	161 Vance R. Noe, Estherville, Iowa.	15
23	6 Lawrence Wietlispach, Streator, Ill.	13
24	126 A. G. Overton, Mason City, Iowa.	10
25	153 Winfred A. Woodis, Worcester, Mass.	10

Nine points — Nos. 139, 157.

Eight points — Nos. 20, 30, 185, 241.

Seven points — Nos. 39, 42, 83, 140, 200, 216, 235.

Six points — Nos. 28, 33, 48, 57, 133, 159.

Five points — Nos. 61, 102, 107, 160, 197.

Four points — Nos. 25, 29, 36, 47, 81, 93, 129, 169.

Three points — Nos. 1, 8, 10, 24, 55, 92, 94, 95, 100, 117, 119, 131, 152, 162, 192, 189, 193, 194, 213, 224.

Two points — Nos. 7, 11, 22, 34, 45, 54, 59, 65, 73, 77, 79, 82, 86, 91, 97, 110, 118, 121, 135, 147, 219, 231, 234.

One point — Nos. 5, 9, 21, 26, 43, 53, 84, 88, 109, 120, 168, 171, 180, 228, 240.

It is not customary for one section of the country to carry off a majority of the honors, but in this case thirteen out of the twenty-five leaders are from the one State of Pennsylvania, while Iowa claims six out of the remaining twelve. Another peculiarity is that there are four men among these first twenty-five each of whom has two specimens in this list of leaders. The first of these is Warren S. Dressler, who holds fifth and seventh places with a total of seventy-six points; next is Arthur W. Baird, holding tenth and thirteenth places with a total of forty-nine points; then A. G. Overton, in twelfth and twenty-fourth with thirty-four points, and Winfred A. Woodis, in sixteenth and twenty-fifth with twenty-seven points. Still another unusual feature is that the leading contestant should have so outdistanced all competitors, having almost



No. 85.— First place.



No. 202.— Second place.



No. 146.— Third place.

fifty per cent more points than the compositor in second place. It was no wonder that the contestants, when they came to the point of acting as judges, were greatly divided in opinion, mentioning 115 out of the 241 ads. submitted in making their selections, and under the circumstances it is difficult to understand just why No. 85 was so universally considered the best ad. While it is undoubtedly a neat arrangement I am inclined to think it was the double panel rather than the choice of display which won for it its laurels. This little ad. has much more of a problem in it than is noticed at first glance, and one which only a few grasped. The "Blanchard Garment" was what was being advertised and must have prominence, of course, but Mr. Blanchard has probably been keeping the "Blanchard Gar-



No. 113.



No. 38.



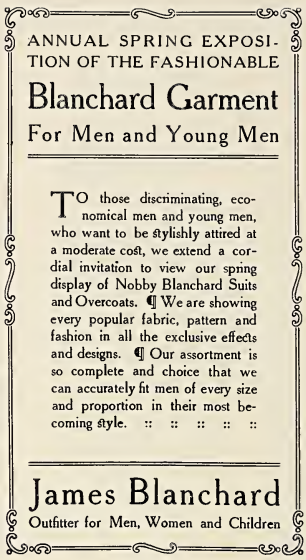
No. 37.



No. 176.



No. 2.



No. 15.

ment" before the public all winter, and perhaps much longer; now he is giving his "Annual Spring Exposition." This fact needs particular prominence, almost as much if not more than the Blanchard garment, yet the latter must be kept well to the front. The problem was to give both these the prominence they deserved and at the same time do it artistically and in good balance. I fail to find a single ad. which just meets these requirements. Vance R. Noe, of Estherville, Iowa, in his No. 160 (reproduced herewith), although it received but five points, grasps the situation, but has made "Exposition" too prominent and "Annual Spring" too small. Mr. Dressler, in his two ads., Nos. 37 and 38, gets the idea more clearly, and his displaying "Blanchard Suits and Overcoats" has points in its favor,



No. 181.



No. 127.



No. 160.

as it makes it clearly a men's ad. and puts the display where it will balance better. Yet there is more tone and more of a trade-mark in the expression "Fashionable Blanchard Garment," which should not have been lost. However, this contest, while it may not have developed the best possible ad. from the copy, has certainly been an instructive one — probably one of the most helpful in the series. I am glad to be able to show herewith the photographs of the leading contestants and publish the following brief biographical sketches:

Michael Edmeyer was born in Hengersburg, Bavaria, Germany, in 1887, and came to St. Paul, Minnesota, with his parents when two years old. His first work as a printer was in the Riverside office in Red Wing, Minnesota, in 1900. In 1904 he moved to Cannon Falls, in the same State, and when *Lewis' Ledger* was started, shortly after, he accepted the position of foreman in the job printing department, being then but seventeen years of age. His employer at once saw that young Edmeyer had a natural talent for executing fine jobwork and encouraged him in applying his time and talent to the art.



MICHAEL EDMEYER.



FRANK J. WOLF.



FRED R. BUTTERS.

Frank J. Wolf was born in Sidney, Nebraska, in 1885, his parents moving to Denver, Colorado, in 1890, where he has since resided. He has just finished his apprenticeship in the office of the Great Western Publishing Company.

Fred R. Butters was born in Kasota, Minnesota, in 1869, but has lived in New England since infancy. His first work at the trade was in the office of the Merimac (Mass.) *Budget*, when he was thirteen years of age. For five years he was assistant foreman of the Manchester (N. H.) *Mirror and American*, which position he left to accept one in the ad. department of the Boston *Herald*, where he is at present employed. He is married and has one child.

Another contest, No. 20, will be announced next month, one which it is hoped will prove even more helpful than any which have preceded it. W. B. Mayes, of the Whitney (Tex.) *Messenger*, who finished seventeenth in this contest, has suggested the copy, and his plan will be fully explained in July.

RATE CARD FOR CANADA.—Advertising rates in Canada are much lower than they should be, as the following request would indicate:

Mr. O. F. Byxbee, Chicago, Ill.: LUNENBERG, N. S., March 29, 1906.

DEAR SIR,— We would like you to furnish us a rate card for advertising, starting at 50 cents an inch one insertion, $5 for the year, and about $80 for one column one year. We enclose postal note for $1. We would also like a rate for open space contracts, and price for readers by the line or word. Our columns are 21¾ inches; circulation 2,400 weekly. We have gone over the rate cards published in THE INLAND PRINTER and found the prices too high for this locality. To graduate them on the scale given above is too big a task for us. Yours respectfully,

PROGRESS-ENTERPRISE COMPANY.

To this request the following reply was sent by mail:

Progress-Enterprise, Lunenberg, N. S.:

GENTLEMEN,— I am in receipt of your favor of March 29 and take pleasure in complying with your request for a rate card. I have graded the prices very carefully, but found it very difficult to grade the card down from 50 cents to $5 so quickly, and still not go below the $80 at the end:

	1 wk.	2 wks.	3 wks.	1 mo.	3 mos.	6 mos.	1 yr.
1 inch	$ .50	$ .65	$ .80	$ .95	$ 2.00	$ 3.30	$ 5.60
2 inches	.65	.95	1.20	1.45	3.30	5.60	9.75
3 inches	.80	1.20	1.60	1.90	4.45	7.70	13.75
4 inches	.95	1.45	1.90	2.30	5.60	9.75	17.75
5 inches	1.10	1.70	2.20	2.70	6.65	11.75	21.50
6 inches	1.20	1.90	2.50	3.10	7.70	13.75	25.00
8 inches	1.45	2.30	3.10	3.85	9.75	17.75	32.50
11 inches	1.80	2.90	3.90	4.90	12.75	23.25	43.00
21¾ inches	2.85	4.85	6.65	8.40	23.00	42.50	80.00

OPEN-SPACE CONTRACTS.

1 inch	$0.50
5 inches	.25
10 inches	.18
25 inches	.15
50 inches	.12
100 inches	.10
250 inches	.08
500 inches	07½
1,000 inches	.07

READERS.

1 line	$0.10
100 lines	.08
500 lines	.06
1,000 lines	.05

You will note that the reduction from 50 cents for one inch down to a little less than 10 cents an inch for fifty-two inches is very rapid, while from this point to 1131 (one column one year) at 7 cents there is only a drop of 3 cents. I could not strike the $5 exactly, but of course you can make the figure even money arbitrarily if you desire. The rates for open-space contracts conform to the card. I have divided these into an unusual number of different contracts, but you can simply omit any that you do not desire to use without affecting the other figures. The prices for readers may be a little high for your locality, but these you can easily adjust to meet your requirements. Yours very truly,

O. F. BYXBEE.

While the rates here given are much lower than a paper of 2,400 circulation should be able to secure, local conditions are frequently such that it is impossible to obtain better prices. This card, therefore, may be found of value to many papers similarly situated, not only in Canada, but in the United States as well.

PROOFROOM

BY F. HORACE TEALL.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PUNCTUATION.— By John Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, $1.

PENS AND TYPES.— By Benjamin Drew. A book of hints and helps for those who write, print, teach or learn. Cloth, $1.25.

BIGELOW'S Handbook of Punctuation gives full information regarding punctuation and other typographical matters. Cloth, 50 cents.

ENGLISH COMPOUND WORDS AND PHRASES.— By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, $2.50.

PUNCTUATION.— By F. Horace Teall. Rules have been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, $1.

COMPOUNDING OF ENGLISH WORDS.— By F. Horace Teall. When and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, $1.25.

TYPOGRAPHIC STYLEBOOK.— By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

THE ORTHOEPIST.— By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, $1.34, postpaid.

THE VERBALIST.— By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4¾ by 6½, $1.32, postpaid.

VEST-POCKET MANUAL OF PRINTING.—A full and concise explanation of all the technical points in the printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

ONE HUNDRED AND THIRTY-FIVE THOUSAND WORDS SPELLED AND PRONOUNCED.— By John H. Bechtel, author of "Handbook of Pronunciation," "Synonyms," "Slips of Speech," etc. For practical needs of busy people and for quick reference this book will be found invaluable. 614 pages; cloth, $2; leather, $2.50, postpaid.

PROOFREADING AND PUNCTUATION.— By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typefounding, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, $1.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.14.

GRAMMAR WITHOUT A MASTER.— By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who have never studied grammar at all, will find it especially suited to their needs. Cloth, 4¾ by 6½, $1.07, postpaid.

THE ART OF WRITING ENGLISH.— By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will impel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, $1.50.

COMMAS AND SENSE.—W. F. D., Salem, Oregon, writes: "Herewith find copy of a blank containing, among other things, a non-mineral affidavit in which are found two statements concerning the non-mineral character of the land. The first reads 'that to his knowledge there is not within the limits thereof any vein or lode of quartz,' etc.; the second reads 'that there is not within the limits of the land, to his knowledge, any placers,' etc. A contends that these statements are practically identical in meaning; that the affiant does not know from surface indications that there is any mineral upon the land. B admits the correctness of A's position as to the first statement, but holds that the commas before and after 'to his knowledge,' in the second statement, makes the affiant swear that he knows absolutely that there is no mineral of the character described, from the surface of the earth to the center. The copy for the affidavit was prepared in the General Land Office at Washington. The argument was started by B making the assertion that no man could make final proof on a piece of Government agricultural land without committing perjury, for no man knows what is between the surface of the earth and the center thereof." *Answer.*— A safe presumption in such a case is that the Government will not prepare an affidavit that will make a man commit perjury. In fact, it may even be questioned whether perjury could possibly be committed by swearing to the affidavit, with honest intention, even if its words actually expressed something that could not be true. The paper undoubtedly is prepared with a serious purpose, and not as a trap for the unwary. It may safely be presumed, also, that the Government is as well aware as any one how much a man may know of what is in the earth. No man should make such assertions as that one about perjury without being reasonably sure that he is right, and it would be good policy to assume that, if he does not immediately perceive the expression to be correct, it is not sure to be because it really is incorrect, but may only seem so to him because of some hitch in his understanding. Much adverse criticism is uttered through haste in coming to a conclusion, when a little thought and study would show the criticism to be unjust. The commas in question in this instance have no such effect as the one suggested. What is meant in both statements is equally well and clearly said in each, and they are not practically identical, and the commas are properly used in the second because of the change in construction. In the first clause the affiant says that he does not know that there is any "quartz or other rock bearing gold, silver, cinnabar, lead, tin, or copper," and in the second that he does not know that there is any "placer, cement, gravel, phosphate, or other valuable mineral deposit." No careful reader could say that these two clauses are identical, for they have all the difference there is between the different things named. In each case "to his knowledge" means so far as he knows, and is equivalent to saying that he does not know, and implies that he has examined the land and did not find any mineral. This question would not be worth anywhere near all this space except for the principle involved. Many sentences are so constructed that commas may or may not be used, with practically equal propriety. Many people prefer to have a long sentence relieved of its unbroken continuity by points, even if the points are not necessary for clearness. Proofreaders should be very careful to get commas in where they are necessary to show the intended sense, and equally careful not to have them where they make the writing mean something not intended; but in cases like the one here considered it really makes no difference whether they are in or not.

A DIVISION.— L. F. S., Meridian, Mississippi, asks a question I had never thought possible, as follows: "How would you divide the word 'Scottish,' in 'Scottish Rite'? Also, please point out the error in the sentence, 'Meeting called for March 14th, 1906.'" *Answer.*— There is only one possible way to divide the word, and that is exactly in the middle. It is the word "Scot" with "ish" added, an extra *t* being inserted because of the accent on the first syllable. Such extra letters always go with the suffix, the part added. The sentence contains no error. Such dates are almost always printed "March 14, 1906," but not always, nor is it the only right way. But in an office having a rule that such dates must be one way, of course the other way is wrong.

Cincinnati Museum
of Fine Arts

Fifteenth Annual Exhibit *of the* Cincinnati Art Club

Comprising Work Done in Oil and Water-color During the Past Two Years, Both in This Country and Abroad, by Club Members

Caslon and Caslon Italic
Made by
INLAND TYPE FOUNDRY
Saint Louis

Programme *of the*

Seventh Annual Concert

To be given by the

Evansville Amateur Musicians' Society

At Fullerton Hall, *on the* Sixteenth of June,

at Eight-thirty o'clock p. m.

This entertainment will be repeated on the afternoon of July 4 at Handel Hall, for the benefit of the Evansville Home for Destitute Crippled Children.

PROGRAMME

Overture, "William Tell" - Rossini
Evansville Orchestra

Vocal Solo, "Dreams" - Braden
Miss Elsie Smith

Cornet Solo - - - Selected
Mr. James Harris

Quartette, "In Long Ago" - Harris
Lyceum Quartette

Duet - - - - - Selected
Miss Smith and Mr. James

Selection from "Il Trovatore" - Verdi
Evansville Orchestra

Vocal Solo, "Summer Days" - Lynde
Miss Elsie Smith

Evansville Orchestra--Harry M. Goodman, James R. Price, Silas Washburne, John L. Fitzpatrick, Harrison Thamer, Wesley Brown, John Smith.

Lyceum Quartette--Miss Harriet Emery, Soprano; Miss Ruth Bonday, Alto; Mr. Julian M. Stutes, Tenor; Mr. Harrison G. Endicott, Basso.

Program

Schumann—Traumerei and Romanza

Buck—Scherzo (1st Sonata)

Lynes—Christmas Song

Westey—Largo, F Sharp Minor
Mr. Albert Homer

Rossini-Buck—Overture

Guilmant—Dreams (7th Sonata)

Raff—March, Leonore Symphony
Mr. Albert Homer

Schumann—Nocturne

Rubenstein—Melody in F

Organ Recital

By Mr. James H. Stone
Assisted by Mr. Albert Hood
Saturday Evening, May 1
at Eight o'clock, in the East Side Baptist Church, Aurora

Caslon, Caslon Italic, New Caslon and Caslon Text
Made by
INLAND TYPE FOUNDRY
Saint Louis

The Hayes Motor Cars

1906 Catalogue

Hayes & Company
Chicago

Dorsey Series in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

Established 1882

Minnesota Safe Deposit and Trust Company

Minneapolis : Minnesota

¶ Capital, surplus and profits over three million dollars. ¶ Total assets over ten million dollars.

Kenilworth, Kenilworth Italic, Avil and Burford Initial in display
Made by
INLAND TYPE FOUNDRY
Saint Louis

Trust Companies Their Usefulness

TRUST Companies are the latest and highest development in the evolution of the business world, and, when properly managed, are a great benefit to mankind. The measure of service which a well-regulated Trust Company can extend to a community has not yet been fully recognized by most people. It teaches the poor to save, manages the affairs of minors, widows and incompetent persons, makes investments for those who are well-to-do, and acts as executor of wills and administrator of estates. In numerous other ways the Trust Company performs services which make it indispensable to the public. With the security provided by ample capital, the certainty of continued corporate existence, and management perfected by experience and supervised by the courts, it can well be said of Trust Companies that they afford abundant safeguards against the many accidents, contingencies and uncertainties necessarily incident to trusts when administered by individuals.

The foremost obligation resting upon an individual who is possessed of property is to make a will. Any person who has thoughtfully observed the difficulties and injustice which so

INFORMAL



The Athelstan Club
Atlanta, Georgia ▽ Tuesday
Evening, May 25, 1906, at 8:30

Design and Lettering by H. L. Gage.
Inland Printer Technical School

Program of a concert by the Apollo Club Dover

Hand-Lettered by W. Stevens,
Inland Printer Technical School

Department of
Oratory A. C. J. S.

An Evening With Dickens

Assisted by the Orchestra and
Department of Physical Culture

Monday Evening, February 26th at 7:45

Composition by C. M. Shelton, Inland Printer Technical School.

The Pirates of Penzance

A
Comic Opera

in Two Acts *by* Gilbert & Sullivan. *Under the Direction of* William Holmes.

Benefit of the Day Nursery *of* Plainfield, New Jersey.

Friday Evng,
October 21, 1906

New Plainfield Theater
Frederick Counihan, Manager

Hand-Lettered by H. L. Gage,
Inland Printer Technical School

Job Composition

Under this head will appear each month suggestive analysis and criticism of reproduced and reset specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

VEST-POCKET MANUAL OF PRINTING. 50 cents.

SPECIMENS OF BUSINESS CARDS AND TICKETS — sixteen-page booklet — 25 cents.

SPECIMENS OF ENVELOPE CORNER CARDS — twenty-four-page booklet — 25 cents. New second edition.

MODERN LETTERPRESS DESIGNS.— A collection of designs for job composition from the *British Printer*. 60 cents.

SPECIMENS OF LETTER-HEADS.— Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

MENUS AND PROGRAMS.— A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

AMERICAN MANUAL OF TYPOGRAPHY.— New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. $4.

IMPRESSIONS OF MODERN TYPE DESIGNS.— Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

BERAN: SOME OF HIS WORK.— Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. $3.

SPECIMENS OF BILL-HEADS.— Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

LECTURES FOR APPRENTICES.— Reprinted from THE INLAND PRINTER. Comprises General Work, Commercial Work and Stonework. 56 pages, fully illustrated, 10 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1, postpaid.

ART BITS.— A collection of proofs selected from odd issues — half-tones, three-color prints, engravers' etchings, etc.— neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, 50 cents, postpaid.

TITLE PAGES.— By Theodore Low De Vinne. Third volume of the series on "The Practice of Typography." Treats the subject from three standpoints — Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, $2.

TWENTIETH CENTURY COVER-DESIGNS.— Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. $5, prepaid.

PLAIN PRINTING TYPES.— By Theodore Low De Vinne. First volume of the series on "The Practice of Typography." A treatise on the processes of typemaking, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, $2.

THE PRINCIPLES OF DESIGN.— By Ernest Allen Batchelder, Instructor Throop Polytechnic Institute, Pasadena, California. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, $3.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proof-reading. Cloth, 12mo, 476 pages, $2.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HINTS ON IMPOSITION.— By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins, and this feature alone is well worth the price of the book. Full leather, 4 by 6 inches, flexible. $1.

PORTFOLIO OF SPECIMENS OF PRINTING.— The second of the series, composed of a wide range of commercial work in pure typography, designed to show the maximum of effectiveness at the minimum of time and expense. Printed on loose leaves and comprises examples of plain and color printing: also a demonstration of the relationship between the size of the half-tone screen and various grades of paper. This portfolio is especially recommended to students and ambitious printers. Price, $1, postpaid.

3–7

THE typographical design and arrangement of a program is subject to much variation, and for that reason furnishes endless possibilities for the display of originality on the part of the compositor. On the initial page, especially, one ordinarily expects to find something attractive and artistic — something removed from the regular line of commercial work. In a great many instances this desire for work more than ordinarily attractive is shown in the use of the elaborately colored and embossed program covers furnished by the paper houses. These leave small opportunity for the efforts of the printer, however, and in many cases the pink cupids and other "artistic" conceptions which grace these stock covers are entirely out of harmony with the faces of type that under normal circumstances are at his disposal.

The quantity printed on the average order for programs is comparatively small, and therefore the use of two or more colors or the printing of the type matter on smooth-finished stock and tipping it on heavy, rough cover-paper is not made prohibitive by the added expense. This latter method of treating a program cover will in most cases result in a pleasing appearance. The prices received for this class of work are not as arbitrary as those received for the regular run of commercial work, and this gives the printer an opportunity to produce something stamped with his individuality.

The use of ornamentation in a program is a thing which should be given careful consideration. The decorative design appropriate for a dance program would be entirely out of harmony with the program for a Sunday-afternoon organ recital, yet this lack of appropriate ornamentation is in evidence on much of the work of this class being turned out. In programs for church celebrations of Christmas or Easter, the use of a text-letter is very appropriate, this being the form of letter generally accepted as being in keeping with ecclesiastical work. Black and red, or red-orange, are the most commonly used colors for this class of work, while for the ordinary program the softer shades and tints give more pleasing results, the use of the harmony of a tint and a shade of a color being very satisfactory. The ability to do hand-lettering, with the occasional designing of an ornament, monogram or initial letter, is valuable to the printer who strives to give a distinctive quality to his productions. In the accompanying insert of program covers, all of which are the work of students in the Inland Printer Technical School, this is well illustrated in the covers for the "Apollo Club," "Pirates of Penzance" and "Informal" programs. In the lettering on the "Apollo Club" specimen is found a certain richness of appearance which can not be produced by the use of type, the color of a lettered panel being much better. The scroll at the bottom of the lettering is thoroughly in harmony with the style of letter used, and is much more pleasing than anything which could be found in the average collection of stock cuts and ornaments. The "Pirates of Penzance" specimen shows a combination of hand-lettering and type, with the use of a stock ornament appropriate to the subject. The dance program is exceptionally attractive, both in lettering and design, for an initial page of this sort, the club monogram adding not a little to the general appearance. The free use of the lettering gives an informal effect quite in keeping with the title and utterly impossible where the conventional type-face is used.

This freedom and grace in hand-lettering, combined with the possibility of producing ornamentation or a monogram suitable for any occasion or any subject, place the printer who uses them in a position to turn out work which soon places him in the "something different" class, a status which every printer strives for.

AN IDEA FOR WINDOW CARDS.

BY D. EDWIN KIMBALL.

THE printer is very often confronted with the problem of getting out an attractive window card for an entertainment of some nature at a necessarily small outlay. When it is possible, he of course has a drawing made and puts out a charming poster, but the point here is to get something almost as striking at less expense.

Very often a half-tone or zinc etching can be procured bearing in some degree on the subject of the advertisement. For example, in the case of the Y. M. C. A. basket-ball card this was the fact. The illustration had been made by one of the members some time before, and the association had had the cut made. It is seldom that such a cut will be found large enough to make of itself a complete window card. One method which has been found very successful is to print the illustration separately on coated paper and then tip it on a colored photo mount. This gives the picture a setting of its own, and really makes a half-tone of thirty square inches do the work of one of a hundred — no small consideration when the cost must be carefully counted. The mount acts in a measure as a frame for the drawing and secures to the whole card the certainty of a more than passing glance.

Instead of using an ordinary type arrangement for the balance of the window card, it adds a distinctive value to have the display line worked out by the artist. This adds also somewhat to the expense, but results in having a window card fairly in a class of specially designed posters.

The treatment of this title line is an interesting problem, and many considerations must be carefully weighed before it is settled. Each window card is naturally a separate and complete study in itself, and must be worked out as best suits its own needs. If the title line is short — a single word, for example — a heavy text-letter is not bad. Being short and therefore easy to read, there is no danger of illegibility in using this style. The "Follies" poster shows this treatment. The single word "Follies" required no second reading to be comprehended, and the full message of the window card was read without hesitation because the first glance was so invitingly easy. The text-letter was the natural one for the "Messiah" poster on account of its ecclesiastical nature. The holly was appropriate for the Christmas season. A greater leeway is possible in athletic window cards — a stern, bold letter is often appropriate, as in the case of the Y. M. C. A. poster. A more graceful title is shown in the heading for the poster designed for the "Dedication of Northwestern Field." On a window card which advertises a series of lectures, legibility can be risked more safely than on one which tells of a single event. The supposition in the case of such a card as that for "The Elmendorf Lectures" was that an attractive title should be made and by its very attractiveness compel observation and lasting remembrance. The colors of the printing carried out the missal effect and reports of the results of advertising by this means have confirmed the suppositions on which it was designed.

The use of the dark photo mounts for the window cards requires much care in the printing, as few of them can be made to show a good color effect in a single printing. Especially where light and bright colors are used it is necessary to run twice or three times through the press. The "Follies" poster is an exception, as in that case the class color, blue, was used alone — a light-blue mount, printed in dark bronze-blue and the tip-on printed in blue double-tone. At least a ten-ply board should be used, since the cards must be able to stand in the windows without bending.

The variety in which such window cards can be made up is limitless and depends solely on the ingenuity of the printer. Their cost does not come close to the cost of specially designed posters, while in effect they are on very nearly the same footing.



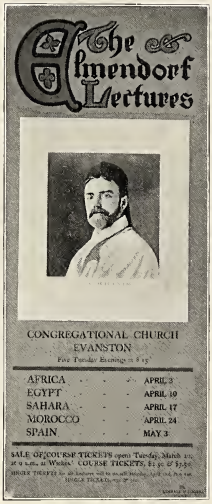
ORIGINAL 9½ BY 22½.



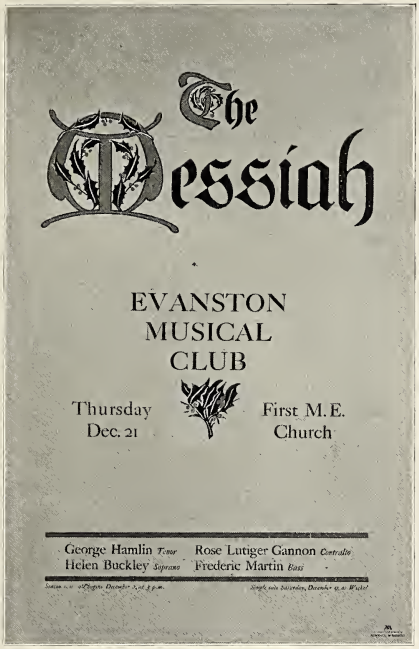
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ORIGINAL 9⅜ BY 22⅜.



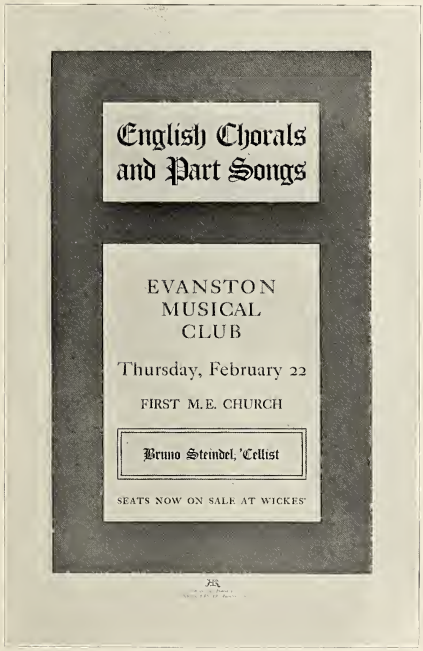
ORIGINAL 9⅜ BY 21⅞.



ORIGINAL 14⅛ BY 21⅞.



ORIGINAL 14 BY 22.



ORIGINAL 14 BY 22.

Written for THE INLAND PRINTER.

TWO AUCTIONS.

BY A. CAMPBELL.

"Bid high! Bid high!" said the auctioneer,
"What will you give me for what I have here?
A book so rare,
Beyond compare.
A thousand years old if it is a day.
Ten dollars? Do you want me to give it away?
Fifteen; twenty; twenty-five;
Thirty-five; forty. Sakes alive!
A book so old
Should not be sold
For a price like that; a relic this!
A chance you can not afford to miss!"

Thus the garrulous auctioneer
Spurred on the crowd with jest and jeer;
And the musty old book whose only worth
Lay in the fact that its date of birth
Was ages and ages and ages away
Sold for a fabulous sum that day.

"Bid low! Bid low!" said the financier.
"How much will you charge to print this job here?
Sixty dollars, eight cents?
Why, that is immense!
Such prices as that I can not pay!
I'll ask some more printers and see what they say.
Fifty-five; forty; thirty-five;
And Jones says twenty; sakes alive!
I knew that I,
If I'd but try
Could get a low price. A cinch like this
I surely can not afford to miss!"

Thus the wealthy financier
Sought the printers far and near
For a price on a job for which paper and ink
Would cost about fifty dollars, I think.
And thus are the jobs to which profits belong
Raffled away for almost a song.

BUSINESS OFFICE

BY EDEN B. STUART.

Under this head will be discussed ideas from all classes of printers, rich or poor, large or small, prominent or obscure, so long as their ideas are of practical value and along this particular line of work. Do not hesitate to consult this department on any problem of estimating that may arise. Printers are urged to forward particulars of any work that will prove of interest and assistance to the trade and to the sender. Address all communications to The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

HINTS FOR YOUNG PRINTERS UNDER EIGHTY.— By W. A. Willard. A discussion of the cost of printing. 50 pages, paper, 50 cents.

EMPLOYING PRINTER'S PRICE-LIST.— By David Ramaley. New edition, based on nine-hour day. An excellent book to use as a basis for correct prices to charge on any kind of printing, $1.

CHALLEN'S LABOR-SAVING RECORDS.— Advertising, Subscription, Job Printer's. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING.— By J. Cliff Dando. The scope of this book is indicated by the title. Has been unqualifiedly indorsed by users throughout the world. $10.

ORDER BOOK AND RECORD OF COST.— By H. C. Bishop. The simplest and most accurate book for keeping track of all items of cost of every job done. Contains 100 leaves, 10 by 16, printed and ruled, and provides room for entering 3,000 jobs. Half-bound, $3. Must be sent by express at expense of purchaser.

CAMPSIE'S VEST-POCKET ESTIMATE BLANK-BOOK.—By John W. Campsie. By its use there is no chance of omitting any item which will enter into the cost of ordinary printing. By its use a proper profit can be made on every job taken. Used by solicitors of printing in some of the largest offices in the country. 50 cents.

STARTING A PRINTING-OFFICE.— By R. C. Mallette. Contents: The Printer as a Business Man, Selection and Location of Plant, The Business Office, The Composing-room, The Pressroom, Light, Power and Heat, The Stockroom, The Book of Samples, Entering the Order, The Job in Process, Determining Cost, Bookkeeping, Preparing and Giving Estimates, Collections and Payments, Advertising and Office Stationery, Employer and Employees, Small Economies and Time-savers. 88 pages, cloth, $1.50.

PRINTER'S ACCOUNT BOOK.—A simple, accurate and inexpensive method of job accounting that is in use by hundreds of prosperous printers. It shows cost of each job, what should be charged for it, what profit *should be* made on it, what profit *is* made. Flat-opening, 10½ by 14½ inches, substantially bound, with leather back and corners; 400 pages, 2,000 jobs, $5; 200 pages, 1,000 jobs, $3.50. Specimen page and descriptive circular on application. Must be sent by express at expense of purchaser.

PRINTERS' INSURANCE PROTECTIVE INVENTORY SYSTEM, by Charles S. Brown. A blank-book 11½ by 15 inches, with printed headings, superfine paper, special ruling. It is a classified and *perpetual* inventory system, and informs you of your plant value every hour of the day, every day of the week, every week of the month and every month of the year. No. 1, loose-leaf, for large job or newspaper offices, $25; No. 2, for newspaper offices only, $15; No. 3, for job offices only, $15; No. 4, for small job and newspaper offices, $10.

NICHOL'S PERFECT ORDER AND RECORD BOOK is one of the most useful record books for printers running offices of moderate size that has ever been published. It serves both as an order book and a journal, no journalizing being necessary, making a short method of bookkeeping. By using this book you can learn at a glance whether orders are complete, what their cost is and if they have been posted. Once entered in this book, it is impossible to omit charging an order. Size, 9 by 12 inches; capacity, 3,000 orders; $3. Must be sent by express at expense of purchaser.

A MONEY-MAKING SYSTEM FOR THE EMPLOYING PRINTER.— By Eden B. Stuart. Contains chapters on: The Value of System, The Job Envelope, Individual Composing-room Ticket, Stock-cutting Order, Pressroom Job Ticket, Individual Press Report, Bindery Time Job Ticket, Bindery Job Report, Office Job Ticket, Individual Bindery Ticket, Pressroom Job Record, Presswork Record, Job Cost Record, Order Blanks, Enclosure Slip Estimate Memorandum, Pay Ticket, Daily Financial Report, Requisition Sheet, Bookkeeping, Perpetual Stock Balance Sheet, Profit and Loss Statement, Summary of Uncompleted Work, Stock Used Check, etc. Cloth, $1.

HOW TO MAKE MONEY IN THE PRINTING BUSINESS.— By Paul Nathan. Contents: The Printer as a Business Man, Starting an Office, What Class of Customers to Seek, How to Develop Business, Writing Advertising Matter, Taking Orders, Advertising, How to Talk to Customers, Cost of Producing Printing, Estimating, Acquiring Money, Price-cutting, Competitors, Profit and How It Should Be Figured, Buying, Doing Good Printing, Composing-room, Pressroom, Business Office, Bookkeeping, Management of Employees, The Employee's Opportunity, Danger in Side Ventures, Systematic Saving, Partnerships, Leakages, Keeping Up with the Times, Suggestions from Others. 375 pages, cloth, $3.

ACTUAL COST IN PRINTING.— By Isaac H. Blanchard. Contains full description of the purpose and use of all the blanks and records, together with complete cost-figuring tables in blank for the purchaser's own use; in the rear of the book are the necessary ruled pages for taking off the annual or semi-annual inventory of the plant, so that absolutely correct figures may be established and the records kept permanently in the office files; a set of tables of calculations on the 5-minute-unit basis; a set of tables of calculations on the 6-minute-unit basis; a complete set of the loose blanks described in the book; one full bound copy of the summary record book for all the departments, sufficient for one year's use in the office, $5. Style 2.—Annual Tables for Printers and Binders. Every practical printer insists on revising his cost figures each year, and for that purpose the cost-figuring tables, together with the blank sheet for use in annual inventory, have been bound together in convenient book form. $2.

COST OF PRINTING.— By F. W. Baltes. Contents: Forms — Job Tag, Job Book, Bindery Tag, Compositor's Daily Time Tag, Total Time on Job in Pressroom, Total Daily Time in Pressroom, Daily Register of Counters, Foreman's Daily Press Record, Form Tag, Time Book, Day Book, Journal and Cash Book, Job Ledger; Tables — Weekly Summary of Labor, Monthly Register of Counting Machines, Monthly Summary of Press Records, Statement of Wages and Expenses, Cost of Time in Composing-room, Cost of Piecework, Cost of Work on Cylinder Presses, Cost of Work on Job Presses; Measuring Dupes, Paid Jobs, Legal Blanks, Monthly Statement of Loss or Gain, Inventory Books, Notes. Samples and Prices. 74 pages, cloth, $1.50.

CAYCES & TURNER, Martin, Tennessee, write: "We inclose copy of a pamphlet we are printing, and would be pleased to have you estimate the cost of getting out two thousand copies, 196 pages. We pay printers $10 per week. Stock will cost us $63.76. Sixteen pages and turn at a form. A gentleman who claims to know states that we could print the job for $185 and make money out of it."

Answer.—

Stock	$ 63.76
Cover, one ream, 22 by 28 — 50, plain S. & S. C., at 5 cents per pound	2.50
Two per cent loss on stock	1.25
Six pounds ink, at 25 cents	1.50
One pound wire	.10
One pound glue	.25
Composition — type-page, 23 by 39 ems pica, 242,000 ems eight-point, 345 hours at 18½ cents	63.83
Cover-page, ½ hour	.10
Make-up, 196 pages, 30 hours	5.55
Lock-up, twelve 16-page forms, 15 hours	2.78
One 4-page form, ¼ hour	.05
One 1-page form, ¼ hour	.05
Make-ready — twelve forms, 28 by 42, 15 hours	2.78
One form, 14 by 20, 1 hour	.19
Cover, 10 by 14¼, ½ hour	.10
Feeding time, 28,000 impressions, 30 hours	5.55
Hand folding twelve 16-page forms:	
Eighty hours at 10 cents	8.00
One 4-page form, 2 hours	.20
Cover, 2 hours	.20
Gathering, thirteen signatures, 20 hours	2.00
Stitching, 10 hours	1.00
Trimming, 2 hours, at 18½ cents	.37
Wrapping and delivering, ½ hour	.10
One hundred per cent general expenses	92.85
Twenty-five per cent profit	63.75
Total	$318.81

If your friend will show you in detail how he can produce this job for $185 and make money at it, he has methods some of us would be glad to become familiar with. I do not know the price you expect to get for the work, but would not advise your quoting much less than the above price, unless your costs are less than those estimated. Look out for your general expenses.

ESTIMATE BLANK.

Zion Printing & Publishing House, Zion City, Illinois: "I have been reading your articles on the 'Business Office' with great profit and pleasure. I am enclosing an estimating blank which we have found to be very easily and quickly worked — by having 'stock,' etc., at the bottom is much more convenient than when at the top. We add our fixed charges to 'productive labor' and profit of twenty or twenty-five per cent to total cost."

Answer.— Your blank is very concise and convenient and should give excellent results. A criticism that I might make would be that your printed list of kinds of work is too limited, and where all items possible on any job are down in black and white all that is necessary in making an estimate is to follow the list from top to bottom and fill in where required. However, your general idea is good and the result is a method of figuring, quick and efficient. I am glad to see printers falling into line in this regard.

THINKS THE ESTIMATE TOO LOW.

George Wray, Minneapolis, Minnesota, writes: "My attention has been called by a friend in Milwaukee to your estimate for G. H. Grant, Stillwater, Minnesota, and my friend wants to know if conditions are such on this side of the St. Croix river that the printer can so easily underbid the printer on the Wisconsin side of the water. I reply that it makes no difference which side of the St. Croix one has a printery, so long as the owner of the printery knows how to estimate. It is pointed out to me that THE INLAND is professedly an educational magazine, and that it is a serious drawback to its usefulness if its instruction is not sound. The writer has not seen the job in question, but is quite sure Mr. Grant will never make much headway in Stillwater, or anywhere else, unless he gets better prices for his labor than THE INLAND PRINTER instructs him to.

Five thousand booklets, eight pages, 3½ by 6 when trimmed:

Stock, 21 by 33, $12 ream, 850 sheets, including covers	$20.40
Express from St. Paul	.60
Profit on paper stock, 25 per cent	5.25
Composition, 7,300 ems, at 60 cents	4.40
Make-up, 8 pages, at 15 cents	1.20
Lock-up, two forms, 1½ hours	1.20
Make-ready, 2 hours; running 6 hours; total, 8 hours at $1.25	10.00
Make-ready, on jobber for one page color, ½ hour, running 5½ hours; total 6 hours at 80 cents	4.80
Ink	.50
Folding, 5,000 double folds, at 25 cents and 20 cents equals 45 cents	2.25
Stitching	6.25
Delivery	.25
Total	$57.10

"As against your price of $46.74. This is only a low price for the job. If Mr. Grant had to run it in four-page forms, the job would cost more, but would not be worth more. It seems to me that it would have been good policy to show the customer just such stock as would have cut 3½ by 6 without so much waste, and thus cut the cost of stock to $16, without giving less value in the stock. It is never good policy to load any job with a lot of waste stock."

CHARGE IT TO THE JOB.

George E. Wray, Minneapolis, Minnesota, in answer to the question, "If, for the sake of convenience, an $18 man is put on work of a $6 girl, is, or is not, the cost production increased, and how should it be accounted on the completed job?" writes: "If the exigencies of the occasion demand that an $18 man be put to work on $6 work, the job causing these exigencies should pay the increased cost of production. This question opens up another thought. The established scale of wages in a given city is $18 per week. An $18 man is given charge of a small catalogue, and he is given to help him a $9 man to set the straight matter. The $9 man can accomplish just as much on the straight matter as the $18 man could if he had set the entire job himself. Is it not perfectly fair to charge the customer the same rate as would have been charged if the $18 man had set the entire job?"

Not in defense of our position, nor what has been written in this department, but for the benefit of those who have asked for and received estimates on work they have done or would like to do, and those who have taken the position of critics of some of these estimates, I want to take this time to write a few lines in answer to these criticisms.

In the first place, criticism and argument — good, sound, unbiased argument, is what we want; without it the labor expended and the possible benefit to the trade hoped for in this department will be unavailing in the first case and a failure to materialize in that of the latter. At the same time, we have tried to make it plain that estimated prices given are *not intended to be the ideal*. The matter of the proper or idealistic selling price is one for the future to



ONE THOUSAND FEET IN THE AIR.

Top of Craggy Mountains, near Asheville, North Carolina.

settle, present plans and desires being to explain the best *methods* of arriving at certain results and not to give the *results* only. The duty of this department is not, therefore, to give estimates in their ideal form or how we hope they could be.

If a printer wants an estimate, he does not usually ask for what he *ought* to charge to conform to the idealistic. He wants to know, either to help him to secure a certain job, to satisfy himself that the price he made is reasonable, or to satisfy a curious or rebellious customer that his charge is fair. It is not in our province to dictate what one printer should charge to succeed in establishing himself in the idealistic class. He would be too lonesome at present.



HAYING TIME.

Readers of this department must get close to the fact (harrowing at that, no doubt) that the editor is obliged to make estimates on the conditions existing in the city, or, more difficult still, in the very office from which the request comes, so far as possible. It would be the simplest thing in the world for me to take specifications as they come and make the estimates on the basis of conditions as they are in my own city. The easiest thing in the world, I repeat. But would it be of practical value to the correspondent? Could he apply the *result* without difficulty and possible loss? And further, while many will, and have done so from time immemorial, insist that it costs as much to produce a certain piece of work in a town of twelve hundred people as it does in a city of one hundred and twenty thousand, it is an easily proved fact that it does not. That is, it *should not*, might be well to add; provided the shop in the smaller city is operated systematically and economically as plants generally are in larger cities, other conditions being usual.

How easy it is to say, "That job is worth not a cent less than $100" to a printer who can prove to his own satisfaction, at least, that he can produce it for $75 and make a profit. Who can say he can not? No one who has not personally and carefully investigated his particular condition. Of course (to make our position yet more plain), we are hoping that in time this same printer *will* be in position to ask *and receive* the $100. That is the ultimate goal we are seeking, and we are expecting to work up to it, or we would not continue to occupy valuable space in THE INLAND PRINTER, but it is a matter of development entirely. Our saying "so and so" will not suffice; we are forced (in order to convince) to go through much preliminary work that will instruct the man who has not either the time or inclination to study out the principle alone.

In making estimates used as criticism of others previously made in this department, it seems to be the usual thing to use what is called the "set-scale method," and while there are printers who have for years used it, they do so from custom principally, not *knowing* positively whether a profit is being made or not. It has been handed down from generation to generation and from journeymen of old to printers of to-day, and apparently accepted as proper and certainly most convenient, and while many printers have no doubt made money by it, such a method will in no way whatsoever prove or even assist to prove that prices thus arrived at are correct and satisfying to the present-day investigators, that it will answer for the future. Esti-

mates thus made can not demonstrate conclusively to the man arguing with the majority of others that they will yield a profit. If this is the case, what will avail or result from a criticism with such a "cipher" or unknown quantity?

In making criticisms effective or of value when using the set-scale method, do not merely put down a lot of figures and expect, by totaling them up, you can show a correct selling price that printers will accept as sufficient. Say *why* and *how* you arrive at those figures. Analyze them. Give your reasons for using them. Not only this, but make your explanations so explicit that we will all know beyond a possible doubt that you know what you are talking about. I repeat, *show us why.*

The mere statement that "twenty-five per cent" must be added to cost of stock for "handling and profit" is no forceful guide. On what do you base the percentage for handling; on weight or cost of stock in dollars and cents? If on the latter, does the cost of stock control the expense of handling? If on the weight, how can you figure "profit" on "weight"? If you figure "cost of handling" on the price of the stock, is more labor required to handle 10-cent stock than 5-cent? You must apply both "handling and profit" on the same principle, should you not? If not, what do you do and why? These are but small matters, but very essential, nevertheless.

Now when you say in your criticisms that composition is worth 60 cents per hour, cylinder presswork $1.25 per hour, certain bindery work $8.50, for instance, in order to make them effective or convincing, should you not explain *why* and *how* you arrive at it? While it may not be absolutely necessary to make estimates in any other way than this for your own satisfaction, provided you know you are right, it *is* necessary, when you are trying to explain to others, that you go more into detail.

As noticed elsewhere, Mr. G. E. Wray sends in a criticism of an estimate given for Mr. Grant, of Stillwater, Minnesota, in the April issue. He also sends an estimate of his own, showing what he thinks Mr. Grant should have asked. He, of course, based his calculations on Minneapolis conditions, and also made some voluntary additions to the specifications as sent to me. In order to satisfy him and to sustain my position, I submit below an estimate on same job with the same methods used as in the former estimate, which I offer for what it is worth. This is also based on Minneapolis conditions as I understand them without being prompted.

Fifty-four hour week:	
Compositors	$18.00
Make-up	18.00
Pressmen	24.00
Feeders	10.00
Bindery labor	9.00
Stock	18.00
Ink	.25
Wire	.20
Composition, 10 hours, at 33⅓ cents	3.34
Make-up, 1½ hours, at 33⅓ cents	.50
Lock-up, 1½ hours,	.50
Make-ready, 3 hours	1.89
Feeding, 15 hours	2.78
Folding, 8 hours	1.34
Inserting, 5 hours	.83
Stitching, 10 hours	1.67
Trimming, 4 hours	.67
Wrapping	.25
One hundred per cent	13.77
Twenty-five per cent profit	11.50
	$57.49

All I ask is, that in making criticisms of estimates, readers will please adapt themselves to conditions as they are in the locality from which the requests come. We can not take up space publishing estimates made on conditions as they probably *should* be. We know how they *should* be ourselves, and can make the same criticisms. Criticisms of *methods* rather than estimates will make more interesting and instructive reading, and I suggest that as many as can, make up a schedule of your *plan* of making prices, how cost and selling price are arrived at and general methods of conducting the selling end of the business. We want to arrive, in the shortest possible time, at a definite and positive uniform plan of estimating, and criticisms of estimates made, unless they bear directly upon this element, while possibly influencing and affecting the particular case in question, will avail nothing and be of slight interest to the trade at large.

WAS THE PRICE TOO HIGH?

W. H. S., Nebraska: "Kindly give me an estimate on booklet. We charged the customer $20.00 for this job and he insists that $20.00 is too high. Two thousand copies; stock enameled book, 32 by 44 — 100, 6½ cents per pound; twelve pages and cover trimmed to 5 by 6, saddle back, wire stitched; Orinthoid cover, 20 by 25 — 60, 11 cents per pound; printed in two colors; no cuts; composition and presswork, 25 cents per hour; binding, 15 cents per hour; presswork on half-medium Gordon."

Stock, 400 sheets — 80 pounds, at 6½ cents	$ 5.20
Cover, 340 sheets — 40 pounds	4.40
Four per cent loss on paper stock	.38
Ink, 1 pound	.60
Type form 22 by 29 ems pica.	
17,000 ems composition, eight-point, 25 hours at 25 cents	6.25
Make-up, thirteen pages, 3 hours	.75
Lock-up, 1 eight-page form, 1 hour	.25
Lock-up, 1 four-page form, ½ hour	.13
Lock-up, 2 one-page forms, ½ hour	.12
Make-ready, 13 by 21, 2 forms	.50
Make-ready, 11½ by 13, 1 hour	.25
Running time, 8,000 impressions, 10 hours	2.50
Hand folding, 6,000, 7 hours	1.05
Folding covers, 2,000, 1 hour	.15
Inserting, 1½ hours	.23
Stitching, 2 hours	.30
Trimming, 2 hours	.30
Wrapping and tying	.15
One hundred per cent general expenses added to all productive labor	13.18
Twenty-five per cent profit	9.26
	$46.20

In addition to the above, the correspondent sends his own estimate of the job which follows. Look over both for comparison and see which is right or nearer so. I guess the customer was not imposed upon in being asked $20.00.

Stock, 300 sheets, 32 by 44 — 100, No. 1 enameled book, at 6½ cents	$ 3.90
260 sheets, 20 by 25 — 60, Orinthoid cover, at 10½ cents	3.21
Composition, 28,000 ems, at 25 cents per 1,000	7.00
Presswork, 8,000 impressions, at 25 cents per 1,000	2.00
Binding, 20 hours, at 10 cents per hour	2.00
Ink, 1-5 pound, at $2.50 per pound	.50
Twenty-five per cent general expense	4.65
Total	$23.26

CLEANING WINDOW GLASS.

To thoroughly clean window glass, pass diluted sulphuric acid, about as strong as vinegar, over it, and let it act a moment; then throw on just enough pulverized whiting to give off a hissing sound, directs the *Master Painter.* Rub both over the pane with the hand and polish with a dry rag. Rinse with clean water and a little alcohol, polish dry and clean. Treat both sides of the glass in the same way.

PROCESS ENGRAVING

BY S. H. HORGAN.

In this department, queries regarding process engraving will be recorded and answered. The experiences and suggestions of engravers and printers are solicited. Address, The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

REDUCING GLASSES, unmounted. 35 cents.

PENROSE PROCESS YEAR-BOOK, 1905-6. $2.85 postpaid.

THREE-COLOR PHOTOGRAPHY.— By A. von Hübl. $3.60 postpaid.

PHOTOENGRAVING.— By W. T. Wilkinson, revised and enlarged by Edward L. Wilson, New York. Cloth, $3.

PHOTOENGRAVING.— By Carl Schraubstadter, Jr. Cloth, illustrated with numerous diagrams, and provided with a copious index. $3.

DRAWING FOR REPRODUCTION.—A practical handbook of drawing for modern methods of reproduction, by Charles G. Harper. Cloth, $2.25.

LESSONS ON DECORATIVE DESIGN.— By Frank G. Jackson, S. M. in the Birmingham Municipal School of Art. Elements, principles and practice of decoration. Cloth, $2.

THE HALF-TONE PROCESS.— By Julius Verfasser. A practical manual of photoengraving in half-tone on zinc, copper and brass. Third edition, entirely rewritten; fully illustrated; cloth, 292 pages; $2, postpaid.

THEORY AND PRACTICE OF DESIGN.— By Frank G. Jackson. Advanced text-book on decorative art; sequel to "Lessons on Decorative Design"; explaining fundamental principles underlying the art of designing. $2.50.

DRAWING FOR PRINTERS.— By Ernest Knaufft, editor of *The Art Student* and director of the Chautauqua Society of Fine Arts. A practical treatise on the art of designing and illustrating in connection with typography for the beginner as well as the more advanced student. Cloth, $2.

PHOTOENGRAVING.— By H. Jenkins. Containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapter on the theory and practice of three-color work, by Frederic E. Ives and Stephen H. Horgan, the frontispieces being progressive proofs of one of the best exhibits of three-color work. The whole is richly illustrated, printed on highly enameled heavy paper, and bound in blue silk cloth, gold embossed; new edition, revised and brought down to date; 200 pages. $2.

PHOTOTRICHROMATIC PRINTING.— By C. G. Zander. To learn the first principles of three-color work there is no better book than Zander's "Phototrichromatic Printing." The photoengraver or printer who attempts color-work without understanding the laws of color phenomena will waste much time and money. To supply this elementary knowledge is the purpose of Mr. Zander's book, and it is done in a thorough manner without scientific complexity. Fifty pages, with color-plates and diagrams. Cloth, $1.

PRIOR'S AUTOMATIC PHOTOSCALE.— For the use of printers, publishers and photoengravers, in determining proportions in process engraving. The scale shows at a glance any desired proportion of reduction or enlargement, as well as the number of square inches in the proposed cut. It consists of a transparent scale, 8 by 12 inches (divided into quarter-inch squares by horizontal and perpendicular lines), to which is attached a pivoted diagonal rule for accurately determining proportions. A very useful article for all making or using process cuts. $2.

THE PRINCIPLES OF DESIGN.— New ideas on an old subject. A book for designers, teachers and students. By Ernest A. Batchelder, Instructor in the Manual Arts, Throop Polytechnic Institute, Pasadena, California. This book has been designated as "the most helpful work yet published on elementary design." It clearly defines the fundamental principles of design and presents a series of problems leading from the composition of abstract lines and areas in black, white and tones of gray, to the more complex subject of nature in design, with helpful suggestions for the use of the naturalistic motif. There are over one hundred plates. Published by The Inland Printer Company, $3.

PHOTOGRAVURE SAMPLES.— J. A. Bried, San Francisco, sends samples of a photogravure process of which he is the inventor and which shows much promise. The effects are in half-tone made from exceedingly fine screens which he makes himself. The etching is done on brass. Mr. Bried hopes to have his method in use in a commercial way in another year.

ANOTHER YANKEE AFTER JOHNNY BULL.— F. Affleck, of San Francisco, wants me to take a fall out of Johnny Bull. A paragraph from his letter is this: "Enclosed find a 'write-up' of the Carl Hentschel Photoengraving Company, of London, England. For the benefit of your Australian readers, who only hear one side of the question, I wish you would state, in no measured terms, that the United States of America is the premier country for processwork, etc." *Answer.*— The Carl Hentschel Company are reorganizing. The "write-up" which appeared in many of the London illustrated weeklies was evidently the work of a promoter who is as extravagant in his claims as a gold mine promoter or a Western town boomer. The Modine-Gamble controversy in this department is enough to referee at present.

REVERSING A TINT PLATE.— L. Fr. Bender, Cincinnati, writes: "I have a large tint plate on zinc of which I would like to have a reversed electro. Would you kindly describe in your next month's issue of THE INLAND PRINTER how to make a mold from this zinc plate from which afterward a wax impression could be made? The tint plate is a very delicate grain." *Answer.*—Why not take a wax mold from the tint plate and deposit a copper shell, back it up and plane true as usual. Then deposit a copper shell on this electrotype. That is the way Linotype matrices have been made by depositing copper direct on type. Making electro shells direct from metal is common in the trade now. But what earthly use is the reversed tint plate after you make it?

MECHANICAL INTENSIFICATION OF HALF-TONE NEGATIVES.— In a large European photoengraving establishment almost every half-tone negative is strengthened locally or intensified over its whole area in the following manner, according to the *British Journal of Photography*: Provided the negatives are not varnished, the dots may be strengthened by black lead. If only a small portion is required to be intensified then a soft pencil is used. If a large area, such as a sky, the lead may be rubbed on with a pledget of cotton or a stump. The lead will be found to adhere to the top and the sides of the dots only, and if done correctly will not touch the spaces between the dots. One would think it unnecessary to resort to this practice at all, nevertheless it is the rule at one large Continental establishment, and every negative is so retouched.

FOUR-COLOR WORK.— The C. E. P. Co., Coldwater, Mich., writes: "Please answer, through your Photoengraving column, what color screen is used to make the negative for printing the black plate in so-called four-color work now being used. We judge that color separation would be necessary to produce the proper effects. Any further suggestions would be appreciated." *Answer.*— So-called four-color work does not mean that the fourth plate should be printed in black ink. The fourth may be a brown or gray, or, in fact, any shade to make up for defects in the other three inks. You will notice in the *Penrose Pictorial Annual* that Mr. Zander uses in his four-color process: lemon yellow, emerald green, magenta red and ultramarine blue. The color filters he uses are consequently the complementary colors of these four inks. If you must have a black printing-plate I should advise an exposure without a color filter, but on a panchromatic plate with full exposure.

THE INCREASE IN THE PRICE OF COPPER.— Numerous causes are responsible for the gradual increase in the price of copper. The growing use of this metal in half-tone engraving and electrotyping, in the sheathing of vessels, roofing of buildings, telephone wiring and other electrical purposes keep the supply exhausted. The Chinese government recently turned sixty thousand tons of copper into her mint for a new coinage, so there is little hope of the price lessening. To the half-tone worker this is a serious

matter, for the reason that while prices of polished copper tend upward, the prices for copper after it is engraved in half-tone tends downward. They should consider the practicability of substituting zinc for copper in the greater part of their half-tone output. Zinc has been improving in quality and declining in price. Some few years ago the writer paid fifteen cents a pound for pure zinc unpolished. He now buys zinc polished, sufficiently pure for half-tone engraving, for less than ten cents a pound. If half-tone workers will but experiment a little they will find they can substitute zinc almost entirely for the more expensive metal.

Collodion Emulsion.— From Penrose & Co., London, comes "Collodion Emulsion," by Henry Oscar Klein. This is one of the most timely and practical books for those who buy ready-made collodion emulsion either in solution or in the dry pellicle. There is no original formula for emulsion given, though Baron von Hubl's formula is printed and recommended for color-sensitized plates, and Sir W. Abney's "Photography With Emulsions," and Baron von Hubl's "Collodion Emulsion" are recommended to those wishing to learn the details of collodion emulsion making. The author says: For direct three-color half-tone work, collodion emulsion will find no equal. In the hands of the intelligent worker it will prove a reliable and pliable process, for it will permit of no end of variations to suit certain requirements, but to the careless "slap-dash" worker it will be the probable cause of his being visited by the most aggravating and apparently mysterious troubles he may ever dream of. This chiefly accounts for the bad reputation that collodion emulsion at one time enjoyed in certain quarters, and for the heartbreaking work of its reintroduction. The book can be had from Tennant & Ward, 287 Fourth avenue, New York. Price, $2.50.

Mr. William Gamble in Paris.— Mr. Gamble tells in *Process Work* of what he saw of interest to processworkers while in Paris for a week. Here are a few jottings from his notes: "Victor, an electrotyper in Paris, does considerable business in photoengraving. M. Rousset, another electrotyper and photoengraver, has some very ingenious wood-planing machines, the invention of his father, which operate somewhat like a Daniel's planer turned on its side, so that the bed is vertical. *L'Illustration* has a photoengraving department that is fairly well equipped. Royle's machinery is in evidence in the mounting department. A peculiar feature of the work in *Le Petit Parisienne* is that the printing is done without a pressure frame, the film being stuck down on the sensitized metal. In the etching-room the etching troughs are of stoneware rocked by power. At the photoengraving firm of Cueille et Boucher I was much interested in some splendid specimens of metzograph screen work. They are quite enthusiastic about the capabilities of this screen. It is noteworthy that these specimens were printed on zinc by the bitumen process. There is a great amount of bitumen work done in Paris, and they prefer it to the enamel, in spite of the fact that the exposure takes about four hours. The Société d'Arts Graphiques have large works purely devoted to the production and printing of color blocks. I saw a big pile of large fashion sheets which I heard were destined for America. They have been experimenting with considerable success on the printing of three-color work on a new rotary principle, about which much may be heard later. In their photoengraving department they use the combination of darkroom and camera, but I gather they were not very much pleased with it. M. Chapelle is the instructor of photoengraving at the public technical school of Paris. Photogravure, collotype, half-tone, line and three-color are taught. The photogravure is done by the old direct way of sensitizing the metal with bichromated gelatin and depositing the dust grain on it, instead of by the carbon transfer process. They have also done very good photogravure work with the screen in it."

Enamel for Brass.— Ernest S. Foden has this recommendation to make in *Process Work* to one who has trouble in getting enamel to adhere to brass. He says: "The cause of the enamel coming off may be due to one of the following causes: Insufficiently hardened or insoluble enamel, and too much heat in the drying of the plate after the bath. The fact that the same enamel holds well on copper



BURNING OF HEADQUARTERS TYPOGRAPHICAL UNION NO. 6.
New York, April 27, 1906.

is no criterion as to its practical value for brass. The enamel that comes off copper is poor stuff, for the nature of that metal is favorable to legitimate treatment and heat, but with brass and zinc it is different. It is the zinc in brass which tends to create trouble, if it is not taken into account in the making up of the fish-glue solution and great care is not taken in submitting the metal to heat when drying or washing off the plate. When brass or zinc is heated above a certain point the molecules crystallize, constantly changing the formation of the metal, hence it will be obvious little heat and a more impervious enamel are imperative. To render the enamel more insoluble the addition of chromic acid — say, not less than twelve grains to twelve ounces of made-up fish-glue solution — is essential, and also the addition of the white of one egg is advisable. Directly the print is burnt in, dash it into a dish of cold water to harden it.

Half-tones from Medals and Coins.— An inquirer who wants to know how best to reproduce, in half-tone, medals and coins, and who has made plaster casts of these objects and photographed the casts without getting satis-

factory results, writes to *Process Work*, whose readers supply a number of answers, from which the following points are gleaned: "Some recommend photographing the medals or coins first, then touching up the photographs by strengthening the shadows and brightening the high lights. The half-tones to be made from the retouched photographs. To make half-tones from these bas-reliefs direct, all recommend that the surface of the metal to be copied be first dulled to one tone. The air brush is used by some to apply the gray or white color. One suggests that a spray of white be applied to the medal at an angle from, say, the upper left-hand side, while a spray of black is blown on the medal from the lower right-hand side. One coats the medal with oxid of magnesium by holding it over a piece of burning magnesium ribbon. From all the opinions on the subject it would seem that a practical method would be to attach with fish-glue the medal to a piece of stout cardboard. Dab the medal over with soft putty to cover the bright surfaces and bring all to one tone. Fasten the cardboard to the copying board and illuminate the coin or medal with a single electric light, being careful that there are no reflections from the side opposite to the electric light, to prevent which it would be well to hang a piece of black velvet or some other absorbent of light at right angles to the face of the medal on that side. Then make the half-tone direct."

Cross-line Screen or Grain Screen for Three-color Work.— Carl G. Hoffmann, New York, asks: "Is not the metzograph screen which gives grain plates just the thing for three-color work? It does away with the disagreeable mechanical pattern of the line or cross-line screen. Have you seen any results in colorwork with the metzograph screen and who is using it?" *Answer.*— Without having any personal experience with the metzograph screen, or having seen any three-color work produced with it, it is the judgment of the writer that it will not give as good results as are at present had with the cross-line screen. There is no doubt that three-color plates can be made with it, but it will require much more practice to acquire the delicate gradation and proper balance of color values with the new screen than with the old one. The danger with the cross-line screen in three-color work is that it is liable to give, with the exception of the yellow plate, too great contrasts. With the metzograph screen the danger is the other way in a tendency to flatness. Too great contrast can be more easily remedied in the printing than flatness. It is not possible to name at this writing any one using the metzograph screen in three-color work. When it is so used it will be mentioned in this department.



Operator — "What do you think of the new foreman, Jimmie?"
Devil — "Say; dat feller could print all he knows in display type on a postage stamp widout canceling de stamp!" — *Monotypit.*

Absolute Focus on Maps with Large Lenses.— "Operator," Washington, D. C., asks: "Is there any positive rule about focusing large maps with rapid rectilinear lenses? Some operators focus for the center, others halfway from the center to the corners, and now I find one who focuses on the corners. This is of course done with the largest stop, which brings only part of the map to a focus, smaller stops being used when the negative is made." *Answer.*— With rapid rectilinear lenses it is customary to focus with open stop on a circle on the copy one-third the distance between the center and corners and then diaphragm until the copy is sharp on the ground glass. In *Le Procede*, M. Clerc has the following suggestion on this question: He inscribes a circle on a piece of bristol board the diameter of the largest aperture of the lens. Divide this diameter vertically into four equal parts by three horizontal lines. Cut out the upper and lower segments, leaving a strip of bristol board equal in width to one-half the diameter of the lens. Then take the largest stop, place it over the cut bristol board and trace the outer sides of the stop so that when the bristol board stop is cut out the openings will be equidistant from its edges, as shown in the diagram herewith. Blacken this new stop and insert in the lens. On trying to focus with it the horizontal lines in the copy will appear double, but a point will be found where the double lines come together and register perfectly on each other. This is the point of absolute focus of the lens. The cardboard stop is to be taken out and the proper small stop inserted before making the negative.



STOP FOR FOCUSING LINE COPY.

Engraved Letter-heads.— L. C. Rhodes, Rensselaer, Indiana, writes: "Can you supply me with a book that will give me detailed instruction as to how designs are made for letter-heads? That is, what material is needed? How large are the drawings made? And above all I would like to know how the clouded shading is made in the sample enclosed?" *Answer.*— No book will give the information sought. The letter-head sent was engraved on stone originally. Lithographic transfers were made from the original engraving and transferred to a smooth lithographic stone from which the letter-heads were printed on a steam press, four, six, eight or more at one impression. For printing on bond or other rough surfaced paper lithographic engraving and printing is preferred to relief engraving and typographic printing. The finest letter-heads are printed on bond paper from steel engraved plates. The next best method for the purpose is lithography. Another acceptable process is cereography, or wax engraving, from which an electrotype is made. The last process in point of result is photoengraving from a line drawing. The usual way to learn letter-head designing is to take a course of two or three years in an art school and then get a small position in the art department of a lithographic house. Too long a time you may say to apply to learning. Well, Germans,

with their excellent technical schools, take more years than that and they are the ones that fill the positions acceptably. Get-rich-quick schemes do not appeal to them as they do to the American-born.

AIR-BUBBLES IN LENSES.— J. D. S., Boston, writes: "I wanted to buy a large lens of from fifteen to twenty inches focus, but the lenses I examined had air bubbles in them large enough to be conspicuous. The salesman told me that bubbles did not interfere in the slightest with the working quality of the lens. I reasoned this way, that a lens filled with air bubbles across its entire surface would be worthless and that the percentage of injury to a lens by bubbles in the glass could be figured by comparing the size in aggregate of the bubbles with the area of perfect glass. Was I right?" *Answer.*— This defect of small bubbles is characteristic of the modern high-class anastigmat lens. In the manufacture of the best crown and flint glass, it is impossible to keep the "metal"— as molten glass is called— heated to the required low temperature long enough to allow the bubbles all to rise to the surface, hence the presence of a few bubbles is unavoidable. Glass containing this defect to the extent of two or more per cent is rejected as unsuitable for lenses. Rays of light going through a lens strike the air bubbles and are either reflected back, or at varying angles, so that bubbles may be considered as opaque spots, and it might be better if they were, for they would then stop promiscuous reflections.

HOW TO GET COMPETENT PROCESS ENGRAVERS.—"In THE INLAND PRINTER (American) for March, lately to hand, there is contained an advertisement for a works manager wanted by first-class firm of photoengravers in England; only experienced men well up in all branches need apply; salary £400 per annum. One would have thought it unnecessary to go to America to get a suitable manager; in fact, in the light of Mr. Gamble's account of his observations in America, it is doubtful if men there are so 'all-around' as they are in England. We happen to know of two similar advertisements appearing in the same paper from English establishments, and both vacancies were filled, not by Americans, but by Englishmen who had only been in America for a short time." The above is from the *British Journal of Photography*, the oldest and best photographic journal in the world. Mr. Gamble's goodnatured comment on our carelessness about workshop appearances has evidently given Mr. George E. Brown, editor of the *British Journal of Photography*, the impression that our workmen are unskilled and that it is "carrying coals to Newcastle" for an English firm to advertise in THE INLAND PRINTER for competent men. In 1880 the writer interviewed Thomas A. Edison in his Menlo Park laboratory in a ramshackle old building. A pile of straw and old clothes in a corner was pointed out as the place where Edison slept, but it was in this untidy workshop, the sight of which would have made Mr. Gamble seasick, that the great inventor had discovered the phonograph, the incandescent electric lamp and a most important feature of the telephone. In the haste to turn out every possible square inch of engraving during business hours, repairs and improvements of apparatus as well as cleanliness of quarters are too frequently neglected, still the great quantity and superior quality of our output are recognized by processworkers everywhere. Within a week comes a request for a process manager to go to Rio Janeiro. Expert advice is asked on a new fifteen-camera engraving plant, and Mr. Robert H. H. Baird, of the *Evening Telegraph*, of Belfast, Ireland, calls for information as to how it is we print halftones so well on fast newspaper presses. So it would seem that foreigners know not only that THE INLAND PRINTER is the proper place to advertise for competent workmen, but it is to this country they should come for information on practical processwork.

VERFASSER'S "THE HALF-TONE PROCESS."—A CORRECTION.— Clarence E. Klaffenbach, Muscatine, Iowa, writes: "In regard to the following I would feel very grateful for an explanation thereof. It is taken from Verfasser's 'The Half-tone Process' which we bought of you. 'Affix the plate to the whirler and coat twice with the following solution, which must have been previously carefully filtered through a piece of cotton wool placed loosely in the neck of a funnel.

White of one egg or dried albumen	10 grains	or 10 parts
Water	1 ounce	or 440 parts
Potassium bichromate	10 grains	or 10 parts

Dissolve the bichromate in one ounce of water, and add to the egg solution, thus making up altogether about ten ounces.' Now I do not understand where the ten ounces come in. Will you please explain?" *Answer.*—Verfasser has made an unaccountable blunder in his formula. If you will make up the solution this way you will have no trouble: Take the white of one egg and beat it up well. Then dissolve fifteen grains of ammonium bichromate in one ounce of water. Add seven ounces of water to the white of egg, stir the bichromate solution in slowly and then add liquor ammonia drop by drop to the orange-colored solution until it turns a pale yellow; filter, and you will have as good a sensitizer for metal as there is. An apology from Verfasser is in order.



A TAILPIECE.

AMERICA AND ENGLAND IN PROCESSWORK.— Mr. E. E. Modine, of Chicago, in the March INLAND PRINTER, page 898, takes Mr. William Gamble, of London, to task for claiming too much for Europeans in the discoveries and development of processwork. Mr. Gamble's reply is given in full, as the discussion is worth space for its educational value: "I have read with interest and some amusement the remarks of Mr. E. E. Modine, in the last number of THE INLAND PRINTER. His letter seems to exemplify the truth of the old saying that 'none are so blind as those who won't see.' It is an unfortunate failing of the American young man that he lets his national pride get the better of his common sense and good judgment. He is apt to forget that the United States is only a relatively small part of the whole world. He also overlooks the fact, or has never been fully taught it, that when his country was still an unpeopled wilderness there were vast nations which had developed the highest mechanical, scientific and artistic skill and whose peoples to this day carry on manu-

factures and handicrafts which America with all its wealth and enterprise and ingenuity has not been able to acquire. If I thought that Mr. Modine's letter represented the feelings of American photoengravers in general, all I can say is that I should be sorry for them, as they will be bound to 'get left' by the progress of photoengraving which is now going on in Europe. Mr. Modine says he has visited every large city in the United States to study engraving ideas, but why has he not extended the field of this survey to Europe? If he is a skilful man in his business he would find no difficulty in getting employment and he would then soon see how much, or shall I say how little, he knows. I can not think of any other way of convincing him that there are bigger and better equipped shops in Europe than in America, and that the men are in no way inferior. I don't know where Mr. Modine has got the information that I only visited a couple of shops. As a matter of fact, I visited over twenty, out of which twelve were in Chicago, and all are representative firms of the highest repute. I hope your readers will not be led to believe that all these plants were of a rickety description — far from it — but I do hold that American plants in general are inferior to European ones. It is my misfortune probably that I did not visit the Crescent and the Columbian Photoengraving Companies, but as I had never heard of them and none of my friends who gave me introductions suggested my visiting these plants, I must be excused for overlooking them. Apparently I should have found there the cream of all the best ideas from 'every large city in the United States,' and it might have modified much of what I have had to say about American photoengraving. I would remark, however, that when a firm, no matter where it exists, turns out 'results little less than marvelous' the world generally hears of it. The fame of many American photoengraving houses has reached Europe. We read of them in the trade journals, see their advertisements and their specimens, and American visitors to our country sound their praises. Why, then, have the Columbian and the Crescent hidden their light under a bushel? Mr. Modine has not shown any conspicuous modesty in his letters. Why should he do so in regard to his business? I rather like the way in which he makes the old eagle shriek and flap its wings, but please forgive me if I think it a tame bird all the same. Mr. Modine asks me what state the three-color process was in in 1894. Well, I will say that some very good work had been done in Europe before that time, and nothing was done commercially (all honor to Mr. Ives's experimental results) with three-color work in the States until Kurtz brought the Vogel process from Europe in 1892. Mr. Modine has not disposed of my statement that there is not a single process known in America that was not originated in Europe. I think I know process history very well, and could give chapter and verse if space allowed. I would just say, however, that all photomechanical processes sprang from the work of two Britishers, Mungo Ponton, who discovered the sensitive properties of bichromate salts, and Fox Talbot, who applied this invention to photoengraving, and was the first to use a screen. Fox Talbot's work was not crude experiment. I have proofs of his plates which show a delicacy in tone gradation, and detail, which the photogravure process of to-day does not excel. I do not claim any exclusiveness for England in regard to the invention of photo-mechanical processes. All European nations have had a share in them, and we acknowledge the part played by America in bringing the half-tone process to a commercial success by the introduction of the engraved screen, the revival of the enamel process on copper and the development of improved letterpress printing."

NEW COOK COUNTY COURTHOUSE.

CHICAGO is setting an example for other great American cities in the construction of a public building planned on business lines and adapted to business purposes. In the New Cook County Courthouse the canons of art have been deftly combined with business principles and a type of architecture produced in which ornamental features have been harmonized with public convenience and sanitary conditions.

This radical departure from old ideals has been accomplished without sacrificing any architectural feature essential to the beauty or unity of style or composition. On the contrary the new structure will retain all the strength, dignity and repose of the ornate type of public building and make more prominent its simpler and more lasting charm.



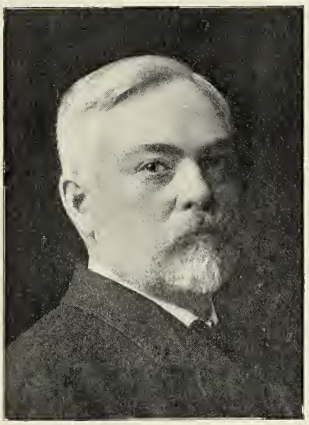
E. J. BRUNDAGE, PRESIDENT, BOARD OF COUNTY COMMISSIONERS.

Many features of the old style of public building — especially of the typical courthouse — will be missing. The towering dome whose chief purpose was to furnish a site for the town clock and a place for those lofty interior decorations, invisible except at imminent risk to the cervical vertebræ, will be absent. The massive porticoes, those efficient collectors of dust, dirt and rubbish and bars to light and air, have been omitted. One feature of the old school of municipal architecture remains — the lofty and imposing pillar — but so arranged and adapted to existing conditions as to offer a minimum of obstruction to light and sunshine.

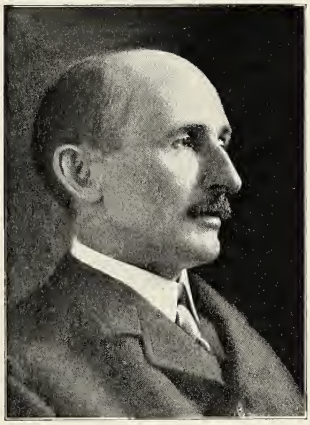
In the interior the lofty corridor and high ceiling, the rotunda with its galleries and niches, the massive decoration threatening momentarily to fall on its unsuspecting victim — all have been abolished and with them the attendant conditions that made impossible effective lighting, heating and ventilation. All the space is put to some use; none of it having been assigned to waste heat and inaccessible dust and cobwebs.

In the official management of the constructive work the same business principles and attention to public interests have prevailed. Before President Edward J. Brundage and his associates on the Board of County Commissioners entered upon the task of constructing a new courthouse they took the public into their confidence. Their first act was to select a committee consisting of Chicago's leading business and professional men to inspect the old courthouse.

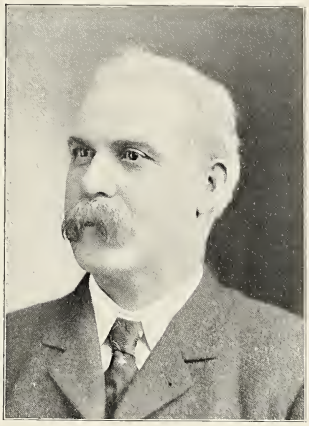
More than a score of county employees in a single department in one season had died from diseases contracted through the unsanitary conditions of the old building. Explosion and fire had damaged the upper floors of one end of the structure to the extent of $150,000, after killing two men. Blocks of stone falling from the crumbling walls had for years endangered the lives of persons entering the courthouse or passing by it. But, lest the cry of jobbery should be raised, men who paid the taxes and frequented the courts were asked to say whether a new courthouse was necessary.



WILLIAM HOLABIRD.



MARTIN ROCHE.



WILLIAM GRACE.

Principals of Holabird & Roche, Architects, and William Grace Construction Company, Contractors, Cook County Courthouse.

Among the members of this committee were John G. Shedd, of Marshall Field & Co., one of the largest taxpayers in the country; Graeme Stewart, a leading wholesale grocer; Walter H. Wilson, a large real estate owner and dealer; Harry G. Selfridge, merchant; Harris W. Huehl, architect, Judge Axel Chytraus, and three members of the County Board. These men pronounced the old building unsafe and unsanitary, recommended that it be torn down and that $5,000,000 in bonds be issued for the erection of a new courthouse.

Backed by these recommendations President Brundage acted promptly. A proposition to issue $5,000,000 of bonds was submitted to the people at the April election and approved by the voters. New quarters for the courts and county offices were obtained and within five months from the day it was decided to erect a new building contractors began to wreck the old one.

In the meantime a commission had been chosen to conduct a competition among architects for plans for the new building. The competition was open to the architects of the country. The same citizens who had recommended the erection of a new courthouse, with some additional members skilled in architecture, constituted the commission.

The plans of Holabird & Roche were chosen and they became the architects of the new building.

The first move toward a new building was made January 23, 1905, when the citizens' committee was appointed to inspect the old building. Nine months later, on October 31, contracts between Holabird & Roche, architects, and John M. Ewen, consulting engineer, for the construction of the new building, were signed. Two and one-half months before, a contract had been entered into with James A. McMahon & Co. to wreck the old building within ninety days and the work was now well under way.

The contract for the caisson foundations was let December 11 to the George A. Fuller Company for $220,000, the work to be completed by May 15, 1906. The foundations, complete in every detail, were turned over to the William Grace Company on that date, the Grace Company having been awarded the construction work for $3,284,000.

These dates have been given to show that business principles applied to government work are as effective as in private enterprise. President Brundage has kept the work moving according to contract. In spite of the importunities of contractors no official junkets for the inspection of building material, mechanical devices or other purposes, have been indulged. President Brundage obtained expert advice and assistance before the contracts were let and then held his watch in his hand to see that the work was completed at the hour specified. Expert supervision has seen that the work has been done according to contract. If this clockwork movement is kept up for the next twelve months as it has in the last nine, the new building will be ready for occupancy on May 1, 1907, and a phenomenal achievement in municipal construction will have been accomplished.

The new courthouse will be twelve stories high, of steel and granite construction. It will have a frontage of 374 feet on Clark street and 157 feet each on Washington and Randolph streets. It will stand back three feet from the building line and the sidewalk will be widened by that much. It will rest on concrete foundations sunk to bed-

rock, the caissons ranging in depth from 106 to 123 feet. From sidewalk level to roof the building will be 205 feet high. A sub-basement will contain the machinery required for lighting, heating and ventilating the structure and operating the elevators.

It will be the first public building of the steel skeleton construction to be erected in this country. In the new structure, however, there will be something more in the exterior walls than the usual veneer of stone, brick and terra cotta used in office buildings. The walls will be of gray granite, considerably thicker and heavier than in the typical skyscraper and more attention will be given to architectural effect. The granite contract is one of the largest ever let for delivery within the time specified.



NEW COOK COUNTY COURTHOUSE.

The style of architecture is of the Corinthian order modified in working out the details to adapt it to the height of the building and its environment. The lower six feet of the walls will be of polished granite. Above this for four stories the walls will be of the usual dressed-granite finish. These lower stories will serve as a base for the granite pillars which rise above it and serve as the walls for the next six stories.

These columns will be ninety-four feet high and give the structure the effect of power, dignity and repose that is absent in the modern office building and distinguish it from that type of structure. The columns will be surmounted by an entablature of architrave, frieze and cornice. Except the cornice, which will be of terra cotta, the entire wall structure will be of granite.

To preserve a maximum of natural light the windows have been placed between rather than behind the columns. This construction will remove the objection to the old type of colonnades which made interiors dark and prevented the admission of sunshine. The west side of the building will be lighted by open courts, above the second floor, at each end of the building. These light courts form three wings of the west half of the structure. The interior walls will be of white enameled brick and terra cotta. The outside or west walls of the wings will be of gray brick or terra cotta.

In the center of the Clark street side of the building will be three entrances, leading into the main corridor. There will, also, be entrances at Randolph and Washington streets. The Clark street entrances will be twenty feet high and each opening wide enough for two pairs of doors. Paneled jambs and richly carved architraves will frame the openings. The doorways will open into a spacious vestibule of marble with an arched ceiling of metal and glass. The floor will be of marble blocks laid in large designs with a border in colored marbles. The vestibule will give access to the main hall through ten pairs of doors. This hall will run from Clark street through to the rear of the building and connect with the corridor running north and south from Randolph to Washington street.

These corridors with their elliptical marble arches springing from massive marble piers will be the show feature of the interior construction. An arcade of seven of these arches will run from east to west spanning at the point of intersection the entire width of the north and south hall. Between the arches the ceiling will be vaulted and groined and covered with a rich mosaic in colored marbles. The ornamentation will be in the Italian style.

The elevators will be set in lateral arches in the main hall, two elevators to each arch. The elevator inclosures

will be of solid bronze ornamental grillework in the scrolls, flowers and foliage of Italian design. At each end of the two banks of elevators will be staircases. The two main staircase landings will be separated from the general level of the hall by marble balustrades, in the center of which will be pedestals for statues or allegorical figures.

The building will contain thirty well-lighted courtrooms. Adjoining each will be the judge's chambers, his private consultation room, jury and witness rooms, closets, basins and toilets. Besides these courtrooms specially arranged quarters will be provided for the Probate and County courts with rooms for the assistant judges and attachés.

Variety will be lent to the treatment of the courtrooms by the use of different wood and colors. Wall space will be provided for mural decorations. Except at the top of the building the rooms will be lighted by a series of windows which occupy the outer wall. The rooms on the twelfth floor will be lighted by saw-tooth skylights in the ceiling which will admit only the steady, northern light. All the rooms will have double windows to shut out noise and the floors will be covered with cork. Contiguous to the court floors will be a spacious law library with alcoves and recesses for the convenience of the attorneys who have occasion to use its shelves.

The commissioners' rooms, private offices of officials and quarters of the various departments will be located on the various floors with reference to the convenience of the public and the speedy and economical despatch of public business.

The new courthouse will be the first building of its kind to be ventilated by the blast system. The air will be washed before it enters the building, heated in winter and cooled in summer. The air will be removed by fans once every ten minutes. A vacuum system will clean the rooms.

Though contracts have been awarded aggregating close to $5,000,000 and a multitude of bidders have sought them, no whisper of jobbery, "graft" or favoritism has been heard. Every contract has been let in the open, every step taken in the prosecution of the work has been under the public eye, and neither political enemy nor the man with the muck rake has had a word of complaint to make.



WHERE THE GRANITE FOR THE COOK COUNTY COURTHOUSE COMES FROM.

Quarries of the Woodbury Granite Company, Hardwick, Vermont.

OH, SPLASH!

The Chicago *Chronicle* says that the Nonpareil Club, an organization composed of printers, gave its sixth annual fish dinner at Roby, Indiana, May 15. The attendance was not up to that of former years, but what was lacking in numbers was fully made up in point of enthusiasm. The fish and hot biscuits were fast disappearing and the hilarity about the dining table was at its height, when there was a break in the proceedings. A seedy looking individual appeared upon the scene and solemnly asked if there was a printer present. Those who were raising biscuits to their mouths paused and those who had made a stab for a fish wavered. In unison there was a negative shake of the heads of all present.

It looked like a quick "touch" and all felt that it was coming. Likewise all were prepared for strenuous resistance.

"Sorry," said the newcomer. "I was told that there were some printers here. I used to be a printer. Now I own the farm next to here and my wife suggested that I come over and invite the printers to visit us and make a night of it. Sorry," and he departed.

There was silence for a few minutes and then some one remarked: "If we were now in a flat building I would be in favor of drawing straws to see who would lock the door against the whole bunch and then turn on the gas." And no one protested.

SPECIMENS

Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

W. H. BURNELL, Caldwell, Idaho.—The poster is well displayed and is a very creditable specimen.

SPECIMENS from The Observer Print Shop, Corning, California, are modest and attractive, both typography and presswork being well done.

SPECIMENS from Everett H. Allen, Downer's Grove, Illinois, are examples of careful type-design and a judicious use of white space.

COMMERCIAL specimens from W. H. Sciple, St. Paul, Nebraska, are exceptionally attractive, both in type-design and treatment of color.

CAREFUL typographical arrangement, good mechanical workmanship and a judicious use of color characterize the products of the press of Beers & Frey, Trenton, New Jersey.

THE Times Printing Company, Lock Haven, Pennsylvania.—The cover submitted is attractive and well designed. The use of a heavier line for the name of the publication would be an improvement.

LOUIS P. SELDEN, Richmond, Virginia.—The use of smaller faces of type would prevent the crowded appearance which characterizes your specimens. The type-designs, however, are original and commendable.

ORIGINALITY and an appreciation of the harmony of color are strong features in the work of Melton & Earle, Dallas, Texas. The commercial specimens submitted are models of neat and tasty typography.

THE Iola *Daily Register*, Iola, Kansas.—The specimens submitted are very creditable, both in composition and presswork. A little more care in the joining of rules would, however, result in an improvement.

HOWARD C. HULL, Asheville, North Carolina.—With the exception of a rather free use of decorative borders, the specimens submitted are well handled. The hotel booklet cover is a very clever arrangement.

NEAT, tasty typography, good presswork and a discriminating use of color characterize the work of the Empire Printing Company, Spokane, Washington. Commercial specimens received this month are quite up to their usual standard.

G. W. EATON, Carthage, Illinois.—A more simple treatment of the title-page would have been an improvement. The three panels on the page, together with the use of three different faces of type, present a rather confusing appearance.

T. C. WILKINSON, Van Wert, Ohio.—The catalogue submitted shows originality in design, but the colors are not well handled. The cover is rather weak in color, while on the inside pages the tint is too strong for the weight of ornaments used.

ORIGINALITY in type display and a judicious use of color are responsible for the neat appearance of work done by The Buchanan Manufacturing Company, Petersburg, Virginia. Lack of careful attention to the joining of rules is noticeable, however.

A. C. BRIGGS, Louisville, Kentucky.—Your specimens show originality and careful attention to mechanical details. The piano-club cover would be slightly improved by removing a pica from below the inside panel and placing it at the top of the page.

CHARLES KIDNER, Hamilton, Ontario.—The title on the menu is too near the center of the page for the most pleasing result. The reading matter at the bottom of the page should also be raised a trifle. The substitution of a tint for the silver would be an improvement.

WELL-CHOSEN color combinations, excellent typography and careful press-work are features of commercial specimens from Hundley & McLane, Clinton, Iowa. The type-designs are original and attractive without the eccentricity so often found in attempts at originality.

MODEST typographical design, careful workmanship and excellent press-work are always noticeable features in the commercial specimens from Charles Lawson Wood, Atlanta, Georgia, the result being very attractive business stationery, devoid of freakish display.

OLIVER C. SCHOFIELD, Richmond, Virginia.—The work shows considerable originality in typographical design. Some of the specimens, however, would be greatly improved by the use of rules which would more nearly harmonize in weight with the faces of the type. This is especially noticeable on the florist card and on the last page of the osteopathy circular, in both of which places a slightly heavier border rule would have been preferable.

A CATALOGUE of Westinghouse Fan Motors printed by Corday & Gross, Cleveland, Ohio, is an excellent production. The cover is printed in colors from half-tones and then pebbled. The text is printed in olive green and the numerous half-tone illustrations in black.

JAMES B. SIMONTON, Atlantic, Iowa.—The program cover could be greatly improved by grouping much of the matter rather than spreading it out over the entire page in lines of varying lengths. The pad heading is unique and should prove a good advertisement.

FRED DUTRA, Los Angeles, California.—Your specimens are examples of neat, modest type display and in general leave little to criticize. In the Building Association folder, however, the ornaments used are too heavy, as they completely overshadow the reading matter.

NEAT, modest typography, careful workmanship and good presswork are noticeable features in specimens received from C. T. Trott, Billings, Montana. A tendency is shown, however, to place the lower lines of reading matter on cover-pages too near the enclosing rule.

THE Paragon Press, Montgomery, Alabama.—Considerable variation in quality of type-design is shown in the specimens submitted, some of them being neat and artistic in appearance while others are rendered commonplace by the use of unnecessarily large faces of type.

LUTHER I. AASGAARD, Forest City, Iowa.—The program is an excellent piece of type-design. The use of a very delicate tint on the border would probably have made it less trying to the eye. The ornamentation on the flap of the cover should be nearer the bottom of the page.

SPECIMENS from Vaughan & Coffin, Everett, Washington, show neat, modest typography, careful workmanship and, with the exception of one or two instances in which blue and red are used as a combination, a good use of color. The professional stationery is exceptionally neat and tasty in design.

J. A. T., MOUNT VERNON, OHIO.—The specimens are very good, with the exception of the catalogue cover, the reading matter on which is entirely overshadowed by the ornamentation. While this style of cover is possible in a two-color production, its advertising value is entirely lost when printed in one color.

THE Neal Press, Marion, Indiana.—The menu specimen submitted is a very neat piece of typography. The business card is rather confusing in appearance owing to the use of the periods as word-ornaments. On the cover of the dance program undue prominence is given to the word "the" at the top of the page.

A CATALOGUE for James McCrea & Co., from the press of the Claflin Printing Company, Chicago, is a creditable piece of work. It is printed in black and green on India tint stock, and contains numerous marginal half-tones as well as illustrations in the text. Careful arrangement and workmanship are shown throughout the specimen.

GLENN R. ROSS, Erick, Oklahoma.—Although the work of a fourteen-year-old apprentice, your specimen compares favorably with much of the work of journeymen. The use of blue and red as a color combination should be avoided, orange being used instead of red. The wide spacing in the upper left-hand panel was unnecessary.

H. J. COWLEY, Lowell, Arizona.—The printing of the cut on the letter-head in black gives it rather more prominence than the type matter. The arrangement is good, and with the use of colors which would subdue the cut and bring out the reading matter a little stronger an attractive letter-head would result. The cards are very unique specimens.

HENNIS PRINTING COMPANY, Mount Airy, North Carolina.—The folder is good in typography, presswork and color. A little care in the distribution of white space around the initial would have produced a more pleasing result. In the use of an initial letter of this kind from four to six points is sufficient between the letter and text, both at the side and bottom.

THE Ben Franklin Press, Brooklyn, New York.—Your specimens are neat in typographical appearance, but are rendered less effective by the colors which have been used. In every case where you have used green it has inclined too much toward the blue, and a yellow-green would have given much better results. The tint used on the statement heading is too strong.

"NIAGARA FALLS," a de luxe booklet designed and printed by The Gage Printing Company, Battle Creek, Michigan, for the Grand Trunk Railway, is an exceptionally artistic specimen. The text is printed on French hand-made paper and the numerous half-tone illustrations are printed on India tint paper and tipped on. The whole is bound flexible in the Roycroftie style in ooze sheep.

IRVING BATH, Hillsboro, Oregon.—The tendency in your two-color specimens is toward an almost equal division of the two colors, even when they are of like strength. This should be avoided. The use of a large amount of one color with a small amount of the other will produce results which are more pleasing. It is not the policy of this department to criticize specimens submitted by a competitor.

C. E. HUGHES, Duluth, Minnesota.—The card specimen submitted would have presented a much better appearance if the firm name had been letter-

spaced instead of putting such wide spacing between the words, the distribution of white in the first word being very uneven. The arrangement of the letter-head allows too little prominence to the merchant's name and too much prominence to his business. Reversing these proportions would produce better results for a letter-head.

An exceptionally interesting package of specimens is at hand from H. & J. Pillans & Wilson, Edinburgh, Scotland, accompanied by a letter from which the following is an extract: "We have been established in Edinburgh for one hundred and twenty-five years, and we do not know if the progressive American thoroughly realizes the struggle which an old established firm such as ours has against tradition and use and wont. . . . Our house has lived through the stirring times immediately after the last Jacobite Rebellion in Scotland, about the end of the eighteenth century, the times of Trafalgar and Waterloo, and through the more peaceful days when Robert Burns and Sir Walter Scott were citizens here." The specimens submitted show a wide range of printing and are uniformly creditable. A book of cover-paper samples contains an artistic collection of cover-designs, both as to arrangement and color treatment. Numerous three-color book-illustrations are shown, as are also half-tones printed over tints.

We have received from Mr. H. H. Bicknell, superintendent of the press of The Society for Promoting Christian Knowledge, Madras, India, a package of specimens which deserve more than passing notice. Chief among these is the "S. P. C. K. Calendar for 1906," and the following technical description will give a fair idea of the amount of labor necessary to its production. The groundwork is of mottled design printed in red, dark green and gold in that order, with tinted panels in flesh tint and steel gray, the letterpress being in bronze blue on the latter. The spaces for the dates are irregularly placed in ribbon form, with the months and Sundays rubricated. The top center is occupied by an oval panel showing the press building and employees, in half-tone, worked in olive-green double-tone ink. To produce the calendar eight different printings, in as many colors, were necessary. Other specimens embrace a wide range of booklet and commercial work, many of the booklets being printed in dialects. Considered as the work of natives who have had very little experience in jobwork, the results are very satisfactory.

Originality is a noticeable feature in the work of the job department of the *Great Bend Tribune*, Great Bend, Kansas. The accompanying letter-head reproduction (Fig. 3) illustrates a unique handling for newspaper



Great Bend, Kansas.

Fig. 3.

stationery. The other rule and column headings are in red, balance in black. Other specimens submitted are very creditable.

The following additional specimens have been received: From Winn & Hammond, Detroit, Michigan, attractive copy of *The Student;* from the Denver & Rio Grande Railroad two neat booklets, entitled "Crossing the Rockies" and "Fertile Lands of Colorado"; Times Printing House, Philadelphia, calendar for May; Union Bank Note Company, Kansas City, Missouri, artistic announcement for Columbus Buggy Company; Meyer Bros. Drug Co., St. Louis, Missouri, neat commercial specimens; Barnes-Crosby Company, Chicago, private mailing card showing well-printed booklet half-tones; M. Widtman Printing Company, Utica, New York, artistic menu and program; McQuiddy Printing Company, Nashville, Tennessee, commercial specimens; Thomas Todd, Boston, Massachusetts, calendar for May; Kerr & Ridge, Pittsburg, Pennsylvania, blotter and four-page leaflet; S. F. Toof & Co., Memphis, Tennessee, carefully designed and well-printed house circular; Smith & Porter Press, Boston, Massachusetts, neat calendar; Lennis Brannon, Talladega, Alabama, tasty commercial specimens; The Nappanee *News*, Nappanee, Indiana, well-printed copy of the class annual of the Nappanee High School; The Pirsch Press, Dayton, Ohio, unique menu.

TYPE SPECIMENS.

A. F. Wanner & Co., Chicago, have issued a comprehensive showing of brass rule in the shape of a sixteen-page booklet. Rules of every description and for every purpose are described and the prices given.

Several booklets and folders are at hand from the Keystone Type Foundry, Philadelphia, advertising their different series of types. A unique booklet tells of the merits of Caslon Bold, while the Dickens, Admidal, Whittier and Encore extended series are each shown in a different manner.

A booklet of Caslon types, issued by the Inland Type Foundry, is an excellent practical illustration of the utility of these faces. In it are shown the Caslon Old-style and Caslon Old-style Italic, New Caslon and New Caslon Italic and Caslon Text. A feature of the booklet is the showing, on opposite pages, of the same specimens set in both the old and the new Caslon. The workmanship on the specimens is quite in keeping with the usual superior quality of the publications of this firm.

TRADE NOTES

The office of the Coy Printing Press Company has been moved to 59 Plymouth place, Chicago.

The Chicago office of the Big Four Printing Ink Company is now located at 401 Dearborn street.

Walter Scott & Co., manufacturers of printing-presses, removed their Chicago office on May 1 from 321 Dearborn street to 1643 Monadnock building.

The business heretofore carried on under the name of the R. L. Polk Printing Company, Ltd., will in the future be conducted as the American Printing Company, Ltd., at 65-69 Congress street, West, Detroit, Michigan, the latter company having assumed all liabilities of said R. L. Polk Printing Company.

McIlroy & Emmet, printers and stationers, 22 Thames street, New York, announce under date of May 15, the admittance of Mr. Frank R. Smith as a partner in the firm. The announcement pays the following tribute to the new partner: "Mr. Smith has merited this advancement by his unfailing attention to business and devotion to the interests of the firm and its patrons during the twenty years of his connection with us." The honors are equal in this pleasing incident.

Wild & Stevens, manufacturers of printers' rollers and composition, 5 Purchase street, Boston, Massachusetts, have issued a handsome booklet telling the story of the development of the business from its inception in 1859 to the present time. The booklet consists of thirty-two pages, 7½ by 9¼ inches, in two colors, on heavy coated paper, with cover in three colors. It is illustrated by half-tones of the building, office and works, and portraits of Mr. C. P. Stevens and Mr. Frank H. Stevens. The work bears the imprint of the Barta Press, Boston, and does not detract anything from the reputation that concern bears for turning out fine printing.

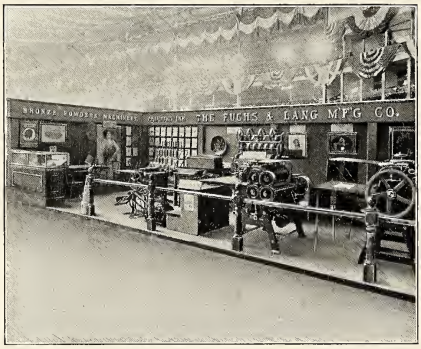
The Lanston Monotype Machine Corporation, of London, announce another sale of Monotype machines to the Indian Government consisting of sixteen casters and twenty keyboards. This, as stated, is the second order and gives an equipment of twenty-two casters and thirty keyboards in the printing-office of the Indian Government. Taken in connection with the advertisement recently issued by the Lanston Monotype Machine Company, of America, that the Monotype machine is used by the government of nearly every civilized country, it is obvious that the adaptability of the machines to all kinds of work has met a severe test and that the result has been a signal success.

In common with practically all the other business interests of San Francisco, the newspapers and printing plants of that city suffered a total loss of buildings and publication plants. The *Examiner's* plant was first to go, evidently being destroyed by the earthquake. The *Call's* magnificent building was burned soon after, the *Chronicle's* followed, and finally, after a last effort to get out papers, the building of the *Evening Bulletin* had to be abandoned to flames. San Francisco had also the *Evening Post, Commercial News and Shipping List, Journal of Commerce, Evening News, Morning Recorder* and the *News Bureau,* together with a German daily, two Chinese dailies, a French daily and an Italian daily. These are all gone,

together with its long list of trade journals and general publications. Steps are being taken to restore them, however, and thirty-six hours after the disaster a consignment of Linotypes left New York by express for the coast.

REPRESENTATIVES of the craft were in evidence at the tenth annual meeting of the American Academy of Political and Social Science at Philadelphia on April 6 and 7. The general topic of the meeting was "The Improvement of Labor Conditions in the United States," and Mr. S. B. Donnelly, of New York, former president of the International Typographical Union; Mr. George H. Ellis, of Boston, president of the United Typothetae; Mr. William B. Prescott, a contributor to THE INLAND PRINTER, and Mr. A. Beverly Smith, of the New York Lithographers' Association, spoke on the sub-topic, "The Settlement of Industrial Conflicts with special reference to the Trade Agreement." Mr. Ellis dilated to some extent on the eight-hour struggle, but Messrs. Donnelly and Prescott stuck closely to the text laid down by the academy. Mr. Smith explained and urged the beauties of the mutual government system which prevails among lithographers and is an adaptation of the plan in vogue in the German printing trades. The other subtopics were, "The Length of the Working, or Trade Life," "The Industrial Condition of the Negro in the North," and "The Condition of Working Women in the United States."

THE Advertising Show at Madison Square Garden, New York city, May 3 to May 9, gave interesting demonstrations by the various manufacturing interests in the graphic arts. Prominent among the advertisers were the following: The American Multigraph Company, 338 Broadway, New York city, showing their celebrated Multigraph Machine, which reproduces letters which are an exact counterpart of typewriting, the entire letter being



FUCHS & LANG EXHIBIT NEW YORK ADVERTISING SHOW.

printed through a ribbon. Isaac H. Blanchard Company, 286 Canal street, New York city, showing a high-grade line of printing, booklets, folders, catalogues and novelties. C. R. Carver Company, Philadelphia, Pennsylvania, operating their celebrated embossing presses. Dexter Folder Company, Pearl River, New York, showing their folders and automatic feeders. R. R. Donnelley & Sons Company, Chicago, showing a wide range of possibilities in printing, catalogue and book printing. Dunning Brothers, Incorporated, 133 William street, New York city, showing their deckle-edging machine in operation. Also a booktrimming and punching machine and mother-of-pearl engraved stationery. Fuchs & Lang Manufacturing Company, 29 Warren street, New York city, and Chicago, Illinois, showing a full line of printing, lithographing, embossing and bronzing machinery, printing and lithographing inks and bronze powders. Mansfeld Machine Company, 193 Center street, New York city, showing a full line of embossing, lithographing, printing, stamping and cutting machines. Latham Machinery Company, 8 Reade street, New York city, and Chicago, Illinois, showing a full line of bookbinders' and printers' machinery, wire stitchers, etc. The Matthews-Northrup Works, Madison Square Garden Tower, New York city, and Buffalo, New York, displaying a large and varied line of booklets, calendars, folders, maps, illustrations and designs in a large variety of processes. J. L. Morrison Company, 143 Worth street, New York city, exhibiting their Perfection Wire Stitching Machines, bookbinders' and printing machinery and supplies. The Meyercord Company, Chamber of Commerce, Chicago, Illinois, showing a full line of Meyercord opalescent window signs, transfers, decalcomania, etc., also a line of leather hides with advertisements transferred in colors. Nind Letter Folder Company, 141 South Clinton street, Chicago, Illinois, exhibiting the Nind Letter Folder, which automatically folds paper of various sizes in one or more folds. The Oswald Publishing Company, 23 City Hall place, New York city, publishers of the *American Printer*, a monthly publication devoted to all that is best in printing; also displaying a line of booklets, folders, prints, etc. The J. W. Pratt Company, 52 Duane street, New York city; exhibiting a large and varied line of booklets, calendars, novelties, folders and stationery. Quadri Color Company, 32 Union square, New York city, displaying their four-color process printing, as shown in an exhaustive line of booklets, calendars, prints, covers, etc. The *Printing Art*, Cambridge, Massachusetts, a monthly publication devoted to high ideals in printing and the allied arts. Edited by Henry Lewis Johnson. *Profitable Advertising*, Boston, Massachusetts, a monthly advertising magazine, presenting every phase of advertising in a masterful way. Edited by Kate Griswold. Also showing a full line of books devoted to advertising. Rogers & Co., 15 Murray street, New York city, and Chicago, Illinois, showing a superior line of booklets, calendars, designs and high-art prints. Sterling Engraving Company, 96 Reade street, New York city, showing a full line of designs, illustrations and prints. Robert L. Stillson Company, 122 Center street, New York city, operating a model printing plant and showing a large range of products in printing, designing, illustrating, embossing, compiling, catalogue and booklet making. Woodward & Tiernan Printing Company, St. Louis, Missouri, showing an attractive line of souvenirs, bas-relief signs, showcards and calendars, also a large line of novelties, booklets, illustrations and designs by a large variety of processes. F. Wesel Manufacturing Company, 70 to 80 Cranberry street, Brooklyn, New York, exhibiting a line of printing machinery, inks and supplies, electrotypers', engravers' and stereotypers' machines and supplies, electrotype cabinets, etc. L. A. Westermann, 41 Union square, New York city, showing a large and varied line of fashion designs and art studies. Whitlock Printing Press Company, Fuller building, New York city, exhibiting Whitlock printing-presses. Winthrop Press, 419 Lafayette street, New York city, showing an exceptionally high-grade line of folders, booklets, novelties and process prints.

LOOK in *Printers' Ink* and you will see that THE INLAND PRINTER is the only paper in the printing trade entitled to the GOLD MARKS proving the *quality* of its circulation, and to a place on the Roll of Honor proving the quantity of its circulation. Its subscription price is as high as the highest and its list is steadily growing, both at home and abroad.

PRINTER'S ADVERTISING

THE Chicago Paper Company has issued a neat booklet devoted to an explanation of its sample sets and their uses. The cover is printed in a shade and a tint of blue on blue-tinted stock and the body of the booklet is printed in brown and a tint of orange.

THE May number of "Pure White," issued by The Champion Coated Paper Company, Hamilton, Ohio, is quite in keeping with the usual standard of this interesting publication. The illustrations are well printed and the text is interesting reading for the buyer of coated papers.

A BOOKLET issued by The Lewis Publishing Company, St. Louis, Missouri, publishers of *The Woman's Magazine*, *The Woman's Farm Journal* and *The Woman's National Daily*, shows interesting half-tone illustrations of the officers, buildings and different departments devoted to the publication of those journals.

THE Stuff Printing Concern, Seattle, has issued a unique advertisement entitled, "The Book of Stuff." It consists of eight pages, 7 by 11 inches in size, and is printed in dark-brown ink on light-brown, rough stock, with the illustrations printed on India tint paper and tipped on. The text consists of a strong argument for the products of the firm.

A "CATALOGUE OF CAPABILITIES," issued by H. & J. Pillans & Wilson, Edinburgh, Scotland, sets forth in an interesting manner, and with numerous excellent half-tone illustrations, the ability of this firm to handle anything in the line of printing and advertising. It is well printed and shows suggestions for commercial printing and advertisement composition.

AN attractive advertising device is used by The Philadelphia *Press*. It is in the shape of a folded mailing card with a facsimile copy of the paper tipped over the fold in such manner that when the card is opened the paper assumes the shape of an umbrella. The title of this clever device is "Get Under the *Press* Umbrella." It will certainly attract attention.

A COPY of the initial number or "flight one" of "Berlin's Flyer" a house organ issued by Berlin & Jones Envelope Company, New York, has reached this department. It is attractive and well printed and contains numerous half-tone illustrations of the firm's different departments as well as a convincing argument in favor of the products advertised.

AN interesting booklet is that issued by the Cahill & Hinds Company, Chicago, entitled, "Type; a Little History." It deals in a brief way with the history of printing and is illustrated with marginal cuts showing different methods employed by the ancients for recording. The cover of the booklet is printed in silver bronze in the shape of a type letter and die-cut. It is a very clever execution.

FROM the *Berliner Morgenpost*, Berlin, a unique calendar has been received. It consists of a twenty-eight-page booklet 7½ by 2½ inches in size. Each month is given two opposite pages, the even folio having an illustration of some department of the newspaper plant and a memorandum blank, and the odd folio containing the calendar and a decorative tree design. This design is carried through the booklet and is drawn to illustrate the growth for each month — whether laden with buds, flowers, or fruit. The whole forms a very interesting specimen.

"A SOUVENIR OF QUALITY" is the title of an artistic publication issued by The Republican Publishing Company, Hamilton, Ohio. It consists of a handsome booklet, 10 by 13 inches in size, containing reproductions of catalogue cover and text pages taken from their run of work. The typography, presswork and embossing are exceptionally well handled, especially the half-tone illustrations of mechanical subjects.

AN interesting exhibit of the capabilities of the Mergenthaler Linotype is shown in a booklet arranged and printed by the University Press, Cambridge, Massachusetts. Book pages set in modern, old-style, text, German, Greek



and Hebrew faces, announcements, programs, menus, advertisements and commercial work — all the work of the Linotype — bear evidence to its general utility. The booklet is in keeping with the high quality of the productions of the University Press. A reproduction of the title-page, an artistic bit of type-design, is shown.

"OTHER things being about equal, the most successful advertising literature is that which is most attractive in appearance." The above quotation from *Promotion*, a house organ published by The Buston Company, Cardiff, Wales, reveals the reason for the failure as an advertising proposition of much of the literature sent out. This applies to the advertising done by printers for themselves as well as that done by them for others. This should not be so. While cheapness may be a desirable quality and appearance count for little in some lines, the very nature of the argument advanced by the printer in soliciting business demands that his "paper salesmen" be of the highest quality. In casting about for a printer to produce advertising literature which will pull trade the merchant would hardly be expected to select one who used for his own publicity inferior printed matter. The natural conclusion

would be that the printer who could not advertise his own business attractively would be a poor person to give publicity to the business of the merchant. There is considerable complaint among the printing fraternity about being hampered in the production of fine work by the desire of the customer to cut down the prices by the substitution of a cheaper quality of stock or dispensing with an additional color when such a color would be a great advantage. This is undoubtedly true, but in a great many cases the merchant is but following the example of the printer himself. The booklet, for instance, when used by the printer, should not only be carefully prepared as to the argument, but the design and workmanship should be something more than that which would be adopted for a book of by-laws or reports. And yet many printers' booklets are much after this style, with unattractive covers, reading matter which commences with "We beg to announce" and ends with "Hoping to receive a continuation of your favors, etc." These are most successful candidates for the waste-basket. The printer, of all advertisers, should be the one to place a premium on originality and an attractive appearance.

AMERICAN exporters who have been sending their goods to Germany have been caught in a veritable *cul de sac*. A recent adjudication before the German imperial court establishes the legal precedent that a trade-mark registered in Germany, *no matter how long a foreign firm may have used the mark*, if placed on its goods makes them liable to seizure when they arrive at German customs houses. Recently, it is reported, an American house shipped to one of the ports of entry, on order from a German buyer, in original packages a lot of goods bearing their old and long-used trade-mark. This particular mark was registered a few years prior by a German firm and when the goods arrived they were seized by customs officials at the instance of the German who had registered the mark. The defense set up was, a claim for damages on account of wrongful seizure. The action of the customs officials was upheld by the lower court and by the imperial court to which an appeal was taken. The German courts, by the trade-marks act of May 12, 1894 (Section 17), are empowered to sustain any seizures, made in the interest of German tradesmen, as against foreigners. Any German firm, so disposed, can hold up exporters by registering the trade-marks of any reputable concern, exploit the same as vigorously as possible and then have the real *owner* of the trade-mark suffer the seizure of his goods.

A NEW WESTERN MAGAZINE.

One of the latest aspirants for favor in the journalistic field is the *Western Homeseeker*, a monthly magazine published at Missoula, Montana. As its name implies, the *Western Homeseeker* is thoroughly Western in character, and is designed to give accurate information concerning openings and opportunities in the great West. Its pages teem with interesting reading matter, and there are numerous very fine half-tone illustrations. One unique feature of the publication is a page devoted to what is known as the "Personal Opportunity Department." In this department is given information concerning specific openings and opportunities for individuals throughout the Northwest. This can not fail to be of great interest to a large number of people who are seeking to better their conditions by a change of location. The *Western Homeseeker* has recently joined the ranks of the popular 10-cent magazines of the day, and has reduced its yearly subscription price to $1. This magazine has a field of its own and apparently has the brightest prospects for success.

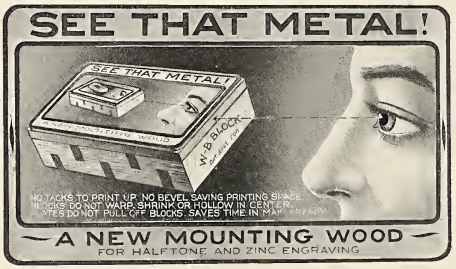
BUSINESS NOTICES

This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

PHOTOENGRAVERS should take note of the "Chartreux Celloidin Emulsion which is in general use in Europe and is now being introduced in America. It is specially prepared for the direct and indirect three and four color process, for reproduction from nature, drawings or oil paintings, preserving all the delicate shades of the original subject. It is said its superiority to dry plates consists in its great color-sensitiveness, durability, clearness and economy and that it is color-sensitive to all rays of the spectrum. George Murphy, inc., 57 East Ninth street, New York city, is sole agent.

THE Tubbs Manufacturing Company, of Ludington, Michigan, who have come into prominence rapidly by their unusual progressiveness and way of "doing things," are offering to the trade another composing-room time-saver in their patent rubber-faced furniture, announcement of which was made in the May number of THE INLAND PRINTER. This material is used for locking-up purposes, and the manufacturers claim for it a great saving of time when used in connection with Monotype matter, Linotype slugs, as well as with movable type, and especially is it desirable for tabular pages. It is claimed that it does away with the working-up of spaces and quads, prevents pulling-out of type. The company send a guarantee with each shipment. It is put up in labor-saving fonts, and may also be had by the yard. The Tubbs people report unusual demands, and it is stated they hardly find it possible to keep up with their orders.

MR. WILLIAM BROWN, of the William Brown Engraving Company, formerly of 417 Montgomery street, San Francisco, California, now doing business at his residence, 1208



Laguna street, having had his place of business destroyed with its entire equipment, has been visiting Chicago purchasing new machinery and materials to resume business, filled with the courage and enterprise which have marked the spirit of his fellow citizens facing their recent great disaster. Mr. Brown has recently patented a process for

perfecting the method of mounting process cuts, an illustration of which is here shown. Mr. Brown desires to arrange with photoengravers to use these blocks on a royalty basis and invites correspondence. His claims for his process state that this patent backing gives a true and rigid impression, thus doing away with tedious and costly make-ready. "There are two methods of mounting cuts on this patent block — one by sweating the cut to the block, which saves one-quarter inch of space, thus allowing type matter to run close to cut — the other method (when not pressed for space) is to bevel plate and tack on patent mount. This operation is not as costly as the sweating process. It has all the advantages of the former, but does not save bevel space around edges of plate. This method affords the use of this patent backing for a trifle more than you are now paying for wood mounts."

KEYSTONE TYPE FOUNDRY OPENS A LARGE BRANCH HOUSE IN CHICAGO.— The Keystone Type Foundry, with its own branch houses in New York, Detroit, Atlanta and San Francisco, and selling agencies throughout the country, has leased the premises 529-531 Wabash avenue, Chicago, known as the Ludington building, which have been fitted up for their occupancy. Mr. George R. Smith (formerly of the firm Champlin & Smith), is manager. With some twelve thousand (12,000) square feet of floor space and the best and most complete facilities for handling Keystone Nickel-alloy Universal Line Type, Printers' Furniture and Supplies, and with an efficient force of capable and experienced people, nothing will be lacking in giving prompt and satisfactory service to customers — the new house naturally being the point of distribution for Chicago and the Middle West. The Keystone is an independent concern incorporated under the laws of Pennsylvania, not a share of its stock being held by any other typefounding concern or any one connected with any other foundry. It is noted for progressiveness and the excellence of its products and service. These have made it possible for this foundry to attain growth and popularity in a few years to an extent never before enjoyed by any other typefounding concern in this country. Its Chicago location is well within the new printing district, the Ludington building being one of the most important fireproof structures in the city occupied by printers and publishers. Other large buildings of a similar class in the immediate vicinity are now occupied by some of the largest printers, publishers and engravers in the country. These and other projected buildings of high class for use by printers and the tendency of this class of trade to go south along Wabash avenue, make it certain that the near future will see the Keystone Chicago house in the center of the most important printing district. Mr. Smith has for many years been closely in touch with printers and publishers in Chicago and vicinity, and those who have dealt with him heretofore need no assurance that business intrusted to him and the foundry he represents will be well handled. The Keystone's Chicago house, as elsewhere, will be worthy of the city in which it is located and of the patronage it seeks from the great printing and publishing houses of the Middle West. Its stocks will be complete and adequate to meet the large demands sure to follow. Its doors will be opened for business early in June.

A NEW WESEL CATALOGUE.

The F. Wesel Manufacturing Company has just issued a new catalogue of printing machinery, appliances, tools and materials, consisting of 246 pages of illustration and closely printed text. Considering the large line of exclusive specialities manufactured by the F. Wesel Company for the use of job and newspaper printers, this catalogue is easily the most comprehensive purchasing list ever placed before the printing public. It is a thorough departure from the great majority of machinery catalogues, as every particle of information that the prospective purchaser could wish to have at hand is given in its pages. For this reason alone it will be highly valued. Every printer in the trade should see that he gets a copy of this new Wesel catalogue.

HENRY O. KLEIN

EXPERT IN COLLODION EMULSION.

The collodion emulsion process as applied to three-color work has been more or less of a failure in this country. Various difficulties are encountered which make the success it has achieved in England a matter of doubt and speculation in this country.

A careful analysis by the United Printing Machinery Company convinced them that the employment of the best expert that could be found to remove the troubles would be considered as a favor by the trade in general. They accordingly, after careful consideration of the chemical conditions of light, water and heat in this country as compared with Europe, placed the result of their observations



HENRY O. KLEIN, F.R.P.S.

in the hands of the Penrose Company, of London, who assisted them in securing Mr. Henry O. Klein, the foremost expert in Europe on the emulsion process. He is now in this country and prepared to demonstrate at the various branches of the United Printing Machinery Company the working of the collodion emulsion as applied to three-color work. The emulsion which he demonstrates, and which is to be handled by the United Printing Machinery Company, has been specially prepared for American conditions and has already experimentally demonstrated its success. There is no doubt that with ordinary intelligence and a following of Mr. Klein's directions this collodion emulsion for three-color work should become a commercial success free from the vexatious failures that have attended the use of Doctor Albert's collodion emulsion in this country. It will

give confidence to the trade after their unfortunate experience with other collodion emulsions, if they will glance through this short sketch of Mr. Klein's life.

Mr. Henry O. Klein was born in Vienna, Austria, 1871. After passing the grammar school, he studied art at Vienna and the Berlin (Germany) Academy. Joining the Imperial High School of the Graphic Arts in Vienna, he studied chemistry and photochemistry under Doctor Eder. Coming to England in 1893, he joined the Photochromatic Company and later the Heliochrome Company in London. Mr. Klein instructed in three-color photography the prominent firms of Spain, Switzerland, Germany and Austria. In 1899 he joined Messrs. Penrose & Co., of London. Later Mr. Klein studied with Doctor Albert the collodion emulsion process and introduced the first three-color direct half-tone process with collodion emulsion and invented the well-known and widely used "Klein Light Filters" and special sensitizers. Baron von Hübl's "Three-color Photography" owes its production in English to Mr. Klein's technical knowledge and ability as a translator.

This special collodion emulsion, prepared to suit American conditions of working with the special sensitizers, will be handled by the United Printing Machinery Company. Mr. Klein will demonstrate at their various branches the method of working the emulsion. Mr. Klein's stay in this country will be short. Photoengravers wishing to avail themselves of his services should communicate with the United Printing Machinery Company at once, as they have charge of his itinerary.

SOCIETY EMBLEMS.

Printers who have heretofore been unable to secure satisfactory cuts from which to print emblems of various secret societies should send to the R. Carleton Engraving Company, 218 South Fourteenth street, Omaha, Nebraska, for their latest lodge cut catalogue. A comprehensive line of original designs is shown, for one or more colors, and special designs will be made to order.

CROWN ENGRAVING PLATES.

The majority of the newspapers of the world, making their own illustrations, use these plates because they are the cheapest, quickest and most satisfactory. These plates are designed to reproduce the finest and most intricate line work and are absolutely guaranteed. Any artist can use the plates satisfactorily after a very little practice and will soon be convinced that his finest work will be accurately reproduced; that each line will be clear, sharp and distinct, and that the most intricate shading or crosshatching will appear in the print just as he makes it on the plate. The Hoke chalk plates were selected, after a competitive test, as the best on which to make the United States Weather Bureau maps. The prices quoted in the advertisement of the Hoke Engraving Plate Company in this paper include a complete stereotyping apparatus.

PROMINENT RAILROAD MAN GOES TO NEW YORK.

The close identification of the railroad business with the printing trade renders it appropriate to note the advancement of one of the most popular railroad officials in Chicago, Mr. George A. Cullen, General Western Passenger Agent of the Delaware, Lackawanna & Western Railway, who has been appointed general passenger agent of that road, succeeding Thomas W. Lee, resigned, effective on July 1. Mr. Cullen was born in St. Louis in 1867, and entered the service of Pullman's Palace Car Company in 1883 as a clerk. He was clerk in the auditor's office of the Wabash, rate clerk for the Missouri Pacific, chief rate clerk of the Southern States Passenger Association, chief clerk of the passenger department of the Plant System, and chief rate clerk and chief clerk of the Western Passenger Association at Chicago. He was appointed general agent of that association at New York in July, 1898, which position he resigned in December, 1899, to become general western



GEORGE A. CULLEN.

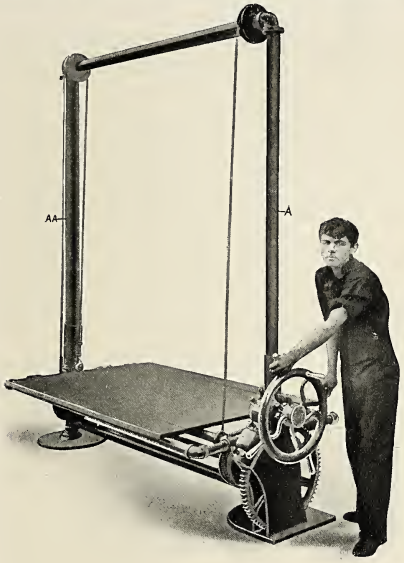
passenger agent of the Delaware, Lackawanna & Western. He has been one of the most active and useful members of the Hamilton Club, and is at present a director.

CLARENCE W. THOMPSON.

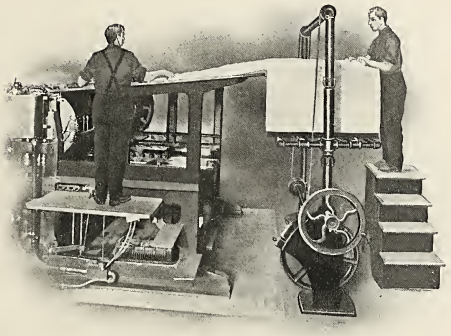
The Barnhart Type Foundry Company, of New York, announce Clarence W. Thompson as their representative in the Empire State. Mr. Thompson is not a stranger to the master printers throughout this particular section, having called on them for several years in the interest of the Buffalo branch of the American Type Founders Company. He is thirty-seven years old, and has been identified with the printing business since the beginning of his apprenticeship in the office of Ex-State Treasurer Colvin at Glens Falls, New York, twenty-five years ago. Completing his apprenticeship, and desiring to broaden his knowledge, he removed to New York, and identified himself with one of the leading publishing houses of the time, gradually winning promotion that carried him to an enviable position in the trade. Mr. Thompson's ability has best shown itself in the selection of equipment for printers establishing new plants, being credited with placing many well balanced and successful printing-offices throughout the State. As a fire insurance appraiser in printing-office losses, he has been selected times without number, being a favorite choice with master printers in representing their interests at the time of a contest over loss. He will make his headquarters at 401 South Warren street, Syracuse, New York, which places him in the center of his territory and within easy traveling distance of his numerous customers.

THE HAMMER PAPER LIFT.

A new device for saving stock, time and labor in the pressroom is illustrated in the accompanying cuts, showing the Hammer Paper Lift, the invention of Mr. J. C. Hammer, 1283 Townsend avenue, Detroit, Michigan, who



has an experience of twenty-five years as a pressman in the handling of cylinder presses, and has given years of study to the problem of increasing the productivity of cylinder presses. The lift, insuring continuous feeding, increases



the capacity of presses from one thousand five hundred to two thousand daily. It saves spoilage in the handling of large sheets, and is substantially constructed of the best materials. It can also be moved about as desired. Full descriptive circulars will be sent on request. The low price of the device and its many obviously substantial advantages assure its general adoption.

S. P. PALMER, NEW YORK MANAGER FOR THE AMERICAN FALCON PRESS COMPANY.

Mr. S. P. Palmer, the manager of the New York branch of the American Falcon Printing Press Company, has had an extensive experience in all lines in the printing art. His first experience in the trade was in connection with the type and printing machinery business of Palmer & Rey Type Foundry in 1883, taking the New York agency for that firm in 1886. In 1892 Palmer & Rey sold out to the American Type Founders Company, and Mr. John J. Palmer, president of the former concern, purchased the Toronto Type Foundry, Toronto, Canada, closing at the same time the purchase of the American patents for the



MR. S. P. PALMER.

Falcon platen press and the Waite die press. Mr. S. P. Palmer was associated with Mr. J. J. Palmer in these enterprises, and was given the important position of manager of the New York branch for the presses named. There are many important economic features in these presses. Their great strength, accessibility, simplicity and directness of movement, and capacity for high speed on the lightest and on the heaviest forms give them a range of usefulness that is appreciated by the trade, the proof being that the orders are far ahead of the output of the manufacturers. Mr. Palmer is a careful student of printing-press mechanism, and having a thorough knowledge of printers' needs, his advice and suggestions are of substantial value in the selection of money-making equipment for the progressive printer.

WORK AND THE EYES.

The influence of occupations upon the eyesight is strikingly illustrated by statistics collected among the schools of Germany and France. In Germany it has been shown that fifty per cent of those engaged in the so-called liberal professions suffer more or less from myopia, or shortness of sight, whereas among laborers the percentage drops to five, and among peasants to only a half of one per cent.

The remarkable growth of myopia with increase of attention demanded by schoolwork is indicated by the fact that the eyes of only six per cent of the scholars in the primary schools of France are affected, but those of more than twenty per cent in the secondary schools. In the College Rollin, fifteen per cent of the scholars have myopia in the lower grades, thirty-two per cent in the third grade and fifty-five per cent in the courses in philosophy.— *The Keystone.*

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

A POCKET COMPANION for Linotype operators and machinists; price, $1. S. SANDISON, 318 W. 52d st., New York, N. Y.

COST OF PRINTING, by F. W. Baltes, presents a system of accounting which has been in successful operation for many years, is suitable for large or small printing-offices, and is a safeguard against errors, omissions or losses; its use makes it absolutely certain that no work can pass through the office without being charged, and its actual cost in all details shown; 74 pages, 6¾ by 10 inches, cloth, $1.50. THE INLAND PRINTER COMPANY, Chicago.

DRAWING FOR PRINTERS, a practical treatise on the art of designing and illustrating in connection with typography; containing complete instructions, fully illustrated, concerning the art of drawing, for the beginner as well as the more advanced student, by Ernest Knaufft, Editor of *The Art Student*, and Director of the Chautauqua Society of Fine Arts; 240 pages, cloth, $2 postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELECTROTYPING, a practical treatise on the art of electrotyping by the latest known methods, containing the historical review of the subject, full description of the tools and machinery required, and complete instructions for operating an electrotyping plant, by C. S. Partridge, Editor of "Electrotyping and Stereotyping" department of THE INLAND PRINTER; 150 pages, cloth, $1.50 postpaid THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL FACTS FOR PRINTERS, by Lee A. Riley; just what its name indicates; compiled by a practical man, and said to be the most practical little book ever offered to the trade; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL GUIDE TO EMBOSSING, written by P. J. Lawlor, and published under the title "Embossing Made Easy;" we have had this book thoroughly revised and brought up to date, and added a chapter on cylinder press embossing; contains instructions for embossing by the various methods applicable to ordinary job presses, for making dies from various materials readily obtained by every printer; also for etching dies on zinc; there are cuts of the necessary tools, and a diagram showing the operation of the dies when put on the press; 75 cents. THE INLAND PRINTER COMPANY, Chicago.

PRESSWORK, a manual of practice for printing pressmen and pressroom apprentices, by William J. Kelly; the only complete and authentic work on the subject ever published; new and enlarged edition, containing much valuable information not in previous editions; full cloth, 140 pages, $1.50. THE INLAND PRINTER COMPANY, Chicago.

THE RUBAIYAT OF MIRZA MEM'N, published by Henry Olendorf Shepard, Chicago, is modeled on the Rubaiyat of Omar Khayyam; the delicate imagery of Old Omar has been preserved in this modern Rubaiyat, and there are new gems that give it high place in the estimation of competent critics; as a gift-book nothing is more appropriate; the binding is superb, the text is artistically set on white plate paper, the illustrations are halftones from original paintings, hand-tooled; size of book, 7¾ by 9¾, art vellum cloth, combination white and purple or full purple, $1.50; edition de luxe, red or brown India ooze leather, $4; pocket edition, 3 by 5¾, 76 pages, bound in blue cloth, lettered in gold on front and back, complete in every way except the illustrations, with full explanatory notes and exhaustive index, 50 cents. THE INLAND PRINTER COMPANY, Chicago.

VEST-POCKET MANUAL OF PRINTING, a full and concise explanation of the technical points in the printing trade, for the use of the printer and his patrons; contains rules for punctuation and capitalization, style, marking proof, make-up of a book, sizes of books, sizes of the untrimmed leaf, number of words in a square inch, diagrams of imposition, and much other valuable information not always at hand when wanted; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

A PHOTOENGRAVING PLANT FOR SALE in a city of 190,000 located in New York State, having a good established business; will dispose of it at a reasonable figure; ill health cause of selling; a good chance for a live, energetic photoengraver. C 351.

AN OPPORTUNITY is offered for a practical man with business ability to acquire an interest in a well-established engraving concern in Boston, Mass.; very little capital required, as the man is wanted more than the money. C 342.

EXCELLENT BUSINESS OPPORTUNITY for one or two printer-operators with some capital; well-established, paying Linotype business; no competition; full investigation invited. C 349.

FOR LEASE to responsible printer the *Morning News* job office, modern and complete. For particulars address "NEWS," Canton, Ohio.

FOR SALE — Fine job-printing plant at Albuquerque, New Mexico; population 15,000, finest climate in the world, well-established trade, central location; one 8 by 12 Gordon, one 12 by 18 Gordon, and one 9 by 14 Pearl press, 9 type cabinets full of choice type, wire stitcher, 25-inch paper-cutter, perforator, round corner machine, safe, desk, and all equipments to a first-class office doing a business of about $700 a month; can be increased to $1,000 by personal attention of owner; will sell at actual inventory, somewhere between $3,500 and $3,800; one-half down, balance on time to suit; can be made to pay out in a year; present owners engaged in other business. F. A. STORTZ, Secretary, Albuquerque, New Mexico.

FOR SALE — First-class job-printing plant; good location; 2 electric motors, 1 Whitlock cylinder press, 3 job presses, 1 power paper-cutter, wire stitcher, abundant supply of type, and other necessary things going to make up full outfit. FLOYD R. POOLE, Battle Creek, Mich.

FOR SALE — Job-printing plant in Chicago; modern; $3,000 value for $1,800; established trade; one-half cash, balance time payments; owner leaves city; exceptional opportunity. WM. SCHWARZ, 346-348 Wabash av.

FOR SALE — Thoroughly up-to-date 3-press litho plant in Illinois city of 50,000 inhabitants; plant has established trade of 10 years' standing. C 238.

Publishing.

PROFITABLE PRINTING INSURED by owning good periodical; I sell publications exclusively. EMERSON P. HARRIS, Publishing Property, 253 Broadway, New York.

FOR SALE OR EXCHANGE.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

BOOKBINDERS' MACHINERY — Smyth No. 3 New Model sewing machine, Chambers' quadruple folding machine, embossing and inking press, and other bindery machinery at low prices. HENRY C. ISAACS, 10 Bleecker st., New York.

CYLINDER PRESSES CHEAP — One each: Hoe 2-revolution, 4-roller, air springs, table distribution, tapeless delivery, 4 tracks, box frame, side and overhead steam fixtures, complete; bed sizes, inside bearers, 32 by 47, 36 by 51, 38 by 55, 45 by 60; One Cottrell 2-revolution, 4-roller, bed 27 by 37, air springs, table distribution, front fly delivery, complete, side and overhead steam fixtures, trip, back-up; one Babcock pony drum, bed 27 by 38, 2 form rollers, air springs, rack and screw distribution, tapeless delivery, back-up, side and overhead steam fixtures; one Cottrell drum, bed 27 by 39, 2-roller air springs, rack and screw distribution, tapeless delivery, box frame, side and overhead steam fixtures; all in first-class order; will be sold very cheap, on easy terms, f. o. b. cars. Address at once E. H. PALMER, 164 Federal st., Boston, Mass.

FOR SALE — Complete photoengraving plant, cheap. C 356.

GAS AND GASOLINE ENGINES that have been used and put in perfect condition; fully guaranteed. COLBORNE MFG. COMPANY, 35 Indiana st., Chicago.

WILL BE SOLD CHEAP — One Monitor paging and numbering machine; one 36-inch Hickok ruling machine, with Blackhall striker; one 44-inch Hickok ruling machine, feint line; one iron standing press with ratchet, 25 by 33; one roller backer, 13-inch jaw; 2 Semple trimmers; one Stonemetz folder — 3 or 4 fold; one 32-inch iron board shears; two 20 by 28 6-rod standing presses; one Sanborn large size bench stamper. BLACKHALL MFG. CO., Buffalo, N. Y.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with The Inland Printer Employment Exchange, and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job-printers, 10; Linotype operators, 10; machinist-operators, 5; foremen, 4; all-round men, 4; bookbinders, 5; solicitor, 1; stonemen, 2; compositors, 2; artist, 1; pressmen, 15; proofreader, 1. Registration fee, $1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

Artists.

COMMERCIAL ARTIST WANTED — First-class on lettering, retouching, quick on sketches and designs; good chance for a young man to secure a good position; send samples of work and apply to SANDERS ENGRAVING CO., Branch, Memphis, Tenn.

Knife Grinders

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E—To stand on bench. Dry grinding only. 26-in. $50, 32-in. $55, 38-in. $60.

Style A—With iron stand. Wet or dry grinding. 26-in. $75, 32-in. $85, 38-in. $90, 44-in. $100, 54-in. $115, 60-in. $150. With water attachment, $10 extra.

Style C—Extra heavy. Wet and dry grinding. 54-in. $185, 60-in. $185, 75-in. $205, 90-in. $225.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N. Y.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

WANTED — Good all-round commercial artist; also young man with talent and some experience to work his way up. BURBANK ENGRAVING CO., Boston, Mass.

Composing-room.

JOB COMPOSITOR AND STONEMAN WANTED—Pleasantly situated suburban office handling good grade catalogue and miscellaneous work; steady situations; married men preferred; no labor troubles; give references and particulars. C 183.

Engravers.

WANTED — A first-class half-tone operator; must be fast and thoroughly reliable; a steady position for such a man. C 338.

WANTED — Half-tone photographer; good chance for advancement; address stating particulars, C 334.

WANTED — Young zinc etcher with at least one year's experience; splendid opportunity for hustler; write now. SEEMAN & PETERS, Saginaw, Mich.

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SUPERINTENDENT of printing department of manufacturing plant in Michigan; a well-equipped open-shop office having 6 compositors, 5 cylinders and 11 jobbers; must be capable of taking entire charge and of getting out proper amount of first-class work at minimum cost; give age, experience, references and salary expected. C 327.

Operators and Machinists.

WANTED — Linotype operator for union book office; best of wages. C 38.

Miscellaneous.

WANTED — Experienced men in Texas, Arkansas, Colorado, Louisiana, New Mexico, Arizona, Indian Territory and Oklahoma to represent a modern printing, bookbinding and lithographing plant. C 264.

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Composing-room.

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Engravers.

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WANTING POSITION — Engraver on both steel die and copperplate. C 336.

Foreman.

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Operators and Machinists.

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LINOTYPE OPERATOR, 6 years' experience, union, sober and steady, 5,000 per hour or better, employed, desires day newspaper work. C 312.

Pressroom.

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COMPETENT PRESSMAN wants position as pressman with good firm; have had 12 years' experience as follows: 4 years' experience as platen pressman, 4 years' experience as cylinder pressman, and 4 years' experience as Harris Automatic pressman. C 333.

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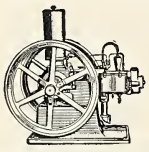
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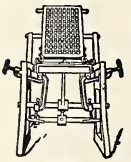
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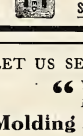
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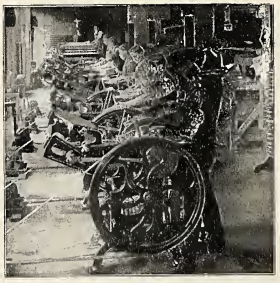
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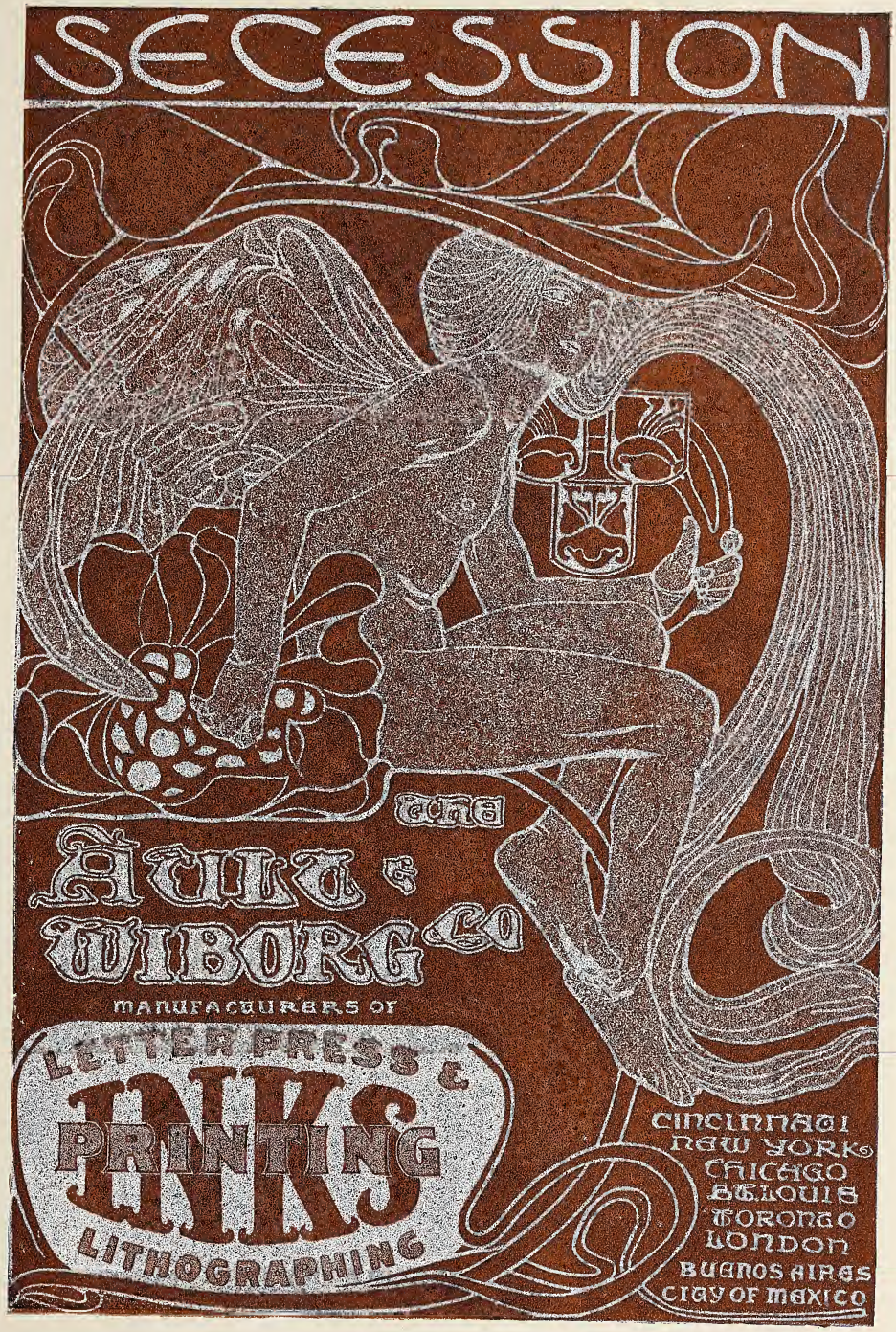
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THE INLAND PRINTER

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DISCURSIONS OF A RETIRED PRINTER.

NO. I.— BY "QUADRAT."



MAN pleads guilty to old age when be becomes reminiscent. The printers of to-day seem dreadfully young to me; perhaps I am old; but do you young printers appreciate what has been done for you by men of my time? I am afraid that very few know and fewer care. But, hold! is this not another sign of old age — to decry the young; and far be it from me to do so, because these "dreadfully young" fellows have the air of knowing so much more than we old men, and perhaps they do. Who knows?

Men who did great things for America and other printerdoms have recently passed on to their eternal rewards; other veterans have laid aside their tools, waiting for the summons to take the path that all, soon or late, are doomed to tread; and I, before it is too late, would fain record some true little histories of "once upon a time."

This retrospective mood was awakened by the examination of a new book — the "American Line Type Book, 1906," just issued by the American Type Founders Company. Now, most sapient reader, I admit this looks suspicious; for who would review a typefounders' specimen book but a paid puffer of salable wares? Most justifiable suspicion! for where shall we escape ad.-smith or press agent. If we look toward the heavens, behold his kite is there; the rocks and hills disclose his handiwork; we venture on the great waters, but can not escape him; we close our eyes, and our ears testify to his omnipresence; yea he feedeth us with predigested viands which are but one of fifty-seven thousand varieties of his wiles; and man escapeth not even in the grave, for he hesitateth not to resurrect "generously good" virtues to exploit a cabbageous imperfecto cigar. He poundeth from the pulpit; the press is his happy hunting ground, and, with the aid of a microscope of intense power, he may even be discovered at intervals (of every other page) lurking in the solemn columns of some printing trade journals — but not on this page or the next; I swear it upon the virtuous emptiness of my lean and hungry purse; for many moons have waxed and waned since I have seen a pay envelope; and, furthermore, I hope to prove an alibi by the self-evident impartiality of succeeding paragraphs, to the effect that I am not that lever of modern commerce, a press agent; for a sage says well, "Mind is the lever of all things," and what other order of mind can create an alpine range of merit out of sand hills of mediocrity. My plea, then: Not guilty!

This new typebook then, to return to our story, is a landmark in typefounding, most interesting for what it does not contain — the first specimen book of a new period in the type trade. Its editors have therein served notice that certain things are done with — things very good, even indispensable, in their day, but now to be shelved so far as typefounding is concerned. Who can tell whether it means a lessening or an increasing demand for the typemaker's work? That is his problem, and he is, as this book shows, ready to face it. It takes courage to discard things good in themselves, to throw aside assets, and take the lead in a new direction; and it requires typefounding ability of a high order to do it successfully, as this book proves it has been done.

Printers owe to two of our youngest typefounders, William and Carl Schraubstadter, of the Inland Type Foundry, that improvement known as the lining system, which under various names, "Uniform," "American," and the like, adopted by their competitors, is substantially the same. This improvement was easy to them, as they began a new foundry based on a systematic lining system, but it became a serious matter to their competitors, hampered by the accumulated matrices of many years, when the inexorable logic of competition compelled them to follow the Inland Type Foundry's lead. To begin right is one thing; to take the wrong and change it, that is very difficult and expensive. The American Type Founders Company is a consolidation of twenty typefoundries. On starting business in 1891 it had probably matrices for over two thousand series of type. Discarding duplications, it had matrices for about seven hundred and fifty series of distinctive type faces. In 1900, nine years after starting, it issued a complete general specimen book, containing the salable residuum of its typefaces — 525 series of job and thirty-seven of body type. Not long after it had to face the lining system proposition. In 1903 it issued a quarto (292 pp.) preliminary specimen book of lining type. It now, in 1906, issues its "American Line Type Book," and it is a safe assumption that its contents represent every series it finds salable enough to go to the expense of changing to the lining system. Comparing it with the 1900 book, I find that of the 562 series in that book only 126 series are retained, to which are added ninety-two job and six body type series that have been originated since 1900: 224 series in all. Though these 436 series disappear from the specimen books, the company doubtless has stocks of them, and will be able for some time to come to fill such orders as may be stimulated by earlier specimen books or may be required to strengthen fonts already in use. I may return to a consideration of the contents of this 1906 book, with those of other books, in a subsequent article.

The significant thing in this elimination is that a large proportion of these discarded series are long familiar plain job-faces, such as Ionics, Clarendons, Gothics, Antiques, etc., which twelve years ago were the very bone and sinew of the type-trade, but are now in the best selling sizes producible on Linotypes and Monotypes. The field of the typemaker is narrowed to the decorative department, his work to provide style to the body-work of the composing machines. To create a new type-style, exploit it vigorously, and supersede it with another fashion so soon as the sales slacken, must now be the policy of the typemaker. As the field narrows, the ability of the typefounder must broaden; the dividends will belong to those who set the type-fashions. Had the majority of the typefounders who in 1891 sold out to the American Type Founders Company remained in business, and continued their policy of relying upon the manufacture of body letter and plain job-type, they would be out of business to-day or getting ready to close their foundries.

It is my purpose at this parting of the ways to tell the story of American typemakers and typefounders during the past thirty years, to preserve the memory of many progressive estimable men and firms who have conferred great benefits on printerdom, to give honor where honor is due — in short, as well as I can, none else volunteering, to present a historical and anecdotal picture of the palmy days of the old-school typemen and their work.

> Thus times do shift; each thing its turn doth hold;
> New things succeed, as former things grow old.

Until the last third of the nineteenth century American typefounders were all pirates. Those good but now almost forgotten Aldines, Antiques, Clarendons, Latins, etc., and seven-tenths of our body letter, were all annexed from the Briton. Our publishers, also, down to a later period, were pirates. In those days the plight of the British typemakers was a sad one — we had little or nothing in the type line to steal, and they had already annexed all the Hollanders had in earlier years, and later on all from the French that could be sold in perfidious Albion; and now there was nothing left to do except to be virtuous and upbraid the Yankee spoiler, and ask him for his own salvation's sake to take the mote out of his star-spangled eye.

Caslon's Circular may serve as an exhibit: published by Caslon, real name Smith, later on by English law renamed Caslon-Smith; business descended from the man who nearly two hundred years ago cut the steel punches of that noblest of all type-faces which we call Caslon Old Style, roman and italic, and which the eminently respectable Johnson Type Foundry appreciatively annexed "before the war," but sold very little of until the taste for it developed in the nineties. The Caslon foundry has been operated these two centuries or more on the same spot, and partly in the same building. Mr. Smith was very vocally anti-American in the days of which I write, and particularly well do I remember his philippic against MacKellar, Smiths & Jordan, the gist being to this effect: Look at these American pirates; how brazen they are is shown by the use of a letter they call 5-line Modern Text [No. 40] as a heading for their *Typographic Advertiser;* a letter designed and made by us, very meritorious



Plate by The Inland-Walton Engraving Company.

Copyright, 1905, by N. Brock.

ROAD TO MURPHY, N. C.

else it were none of ours, which these Yankees have copied and sell, without having paid us even a thank-you for it. So much for the mote.

Forbear to judge, for we are sinners all.

In the same issue of *Caslon's Circular* there was an advertisement of the indispensable Little Giant Rule and Lead Cutter, invented by a draftsman named Brown, patented by Golding & Co., and promptly pirated by Smith-Caslon and other English concerns. There also were the advertisements of Cropper's Minerva, Wade's Anglo-American Arab, and Cook's Model job presses, comprising, with a bad copy of Merritt Gally's Universal, all the job presses used in England at that time, and all of them American inventions. The Minerva is the Old Style Gordon, the Arab is the New Style or Franklin Gordon, both invented by George P. Gordon, and the Model was the invention of Daughaday, of Philadelphia — a press that has disappeared on this side. In other lines, too, at that time, it was clear that John Bull was dependent on his Uncle Sam for inventions for printing with, and so he is to this day. And had we looked into the Caslon castingroom, or that of any other British typefoundry of that time, we would have found that all their type was cast on piracies of the typecasting machine — the first practicable type-machine made — invented in 1838 and greatly improved in 1843 by David Bruce, cousin of that David Bruce who was the last of the eminent Bruce typefounding family.

And, further, had you visited old England in those days, as I did, you would have been amused or amazed to find there men of the highest respectability, looking you in the eye, conscious of the infallibility of British rectitude, claiming British paternity for most of these machines, and accusing the Yankees of pirating them. So much for the beam.

The personalities indulged in by English and American typemakers thirty and more years ago are amusing to us who can now look back with unprejudiced eyes. In 1868, under the head "More Borrowing," Mr. MacKellar, in his *Typographic Advertiser,* commenting on British appropriation of the Gordon press, growls: "Why will not our over-the-way neighbors do the fair thing by us?" seemingly oblivious to the fact that his own specimen book was full of type faces originated in England, which on the other hand had at that very date annexed his beautiful Card Text, Fancy Text, etc. The *Typographic Advertiser* first appeared in 1855. It was and will ever remain the model of what a typefounder's publication should be — of high literary merit, of unexceptionable taste and perfectly printed. In 1875 Mr. Smith started his *Caslon Circular,* and in his opening article says that the idea of printing such a paper was quite an old one with him (very difficult to antedate an Englishman's ideas!) *but* he had conceived a "prejudice based on the issue in a sister country of typefounders' publications which certainly were distinguished more for vulgarity than good taste," meaning the *T. A.* Now I knew these men; their truthfulness and probity were high — I have before me a complete file of that splendid *Typographic Advertiser* — and I know that what Mr. Smith wrote was a slander. The fact is that both men's pens ran away with them when their national prejudices were excited.

Piracy is too harsh a word to apply to these international exchanges, for they were legal in the absence of protection, and in those days few American inventors took out foreign patents. To-day English law protects type-designs more effectively than our own. Whether a United States patent will protect a type-design has yet to be determined in the courts; the typefounders do not seem anxious to proceed to a test, even when their designs are copied; and, while they continue to patent, find more security in a "gentleman's agreement" among themselves.

In recent years Mr. Caslon-Smith became more appreciative of American type, and is now making a number of American type-faces, having in every instance purchased the right to do so. Those who have visited his famous foundry must have brought back pleasurable recollections of his genial and sturdy character, and his pious veneration of the illustrious Caslon I., as he is designated. The first Caslon lived in no mean style in apartments adjoining his workshops. Some of the rooms are preserved in their original state, and on the walls are hung large portraits in oil of the Caslon typefounding dynasty, and there, if I am spared again to make the pilgrimage, I hope to see Mr. Caslon-Smith's portrait, well worthy as he is to have that honor. In these rooms, thanks to that fine old English trait, appreciation of the master-work and master-workers of the past, was a museum containing the long line of specimen books, old typefounding devices and mechanisms, mementoes of the business — in short, everything calculated to impress a mind interested in the development of a noble art-craft. Caslon cut sizes of his famous series up to twelve-line (if my memory serves), the sizes above seventy-two-point being cut in brass and the type cast in sand molds, and the original patterns are to be seen in this admirable little museum.

Let others hail the rising sun:
I bow to that whose course is run.

"People will not look forward to posterity, who never look backward to their ancestors," said

Edmund Burke. The only immortality we are humanly sure of is in the memory of future generations; and those who desire their work to be appreciated by posterity should do for the past what they would wish posterity to do for them.

May I suggest that the American Type Founders Company, as successor to such honored names as Ronaldson, Dickinson, Johnson, Conner, Bruce, Dalton, Richard Smith, MacKellar, St. John, Marder and others, has, at this period when its activity is so rapidly antiquating the work of its contribute valuable items to such a collection; and in many old established printing-offices books and documents to complete the historical sequence may yet, before it is too late, be found. I, myself, would gladly contribute some books and files of which probably no duplicates are extant.

Imagine with what interest even the next generation would examine authentic copies of the first specimen sheets and specimen books of the first type made by a White on a casting machine, the first type made on the American point system by



Plate by The Inland-Walton Engraving Company. WHERE THE SPECKLED TROUT ABOUND. Grand Trunk Railway System.
Madawaska River, Algonquin National Park of Ontario.

forerunners, the opportunity to do a service graceful to its predecessors and valuable to posterity, by following the example of Mr. Caslon-Smith. What could be more interesting than a collection of all the portraits of eminent American typefounders, editions of all specimen books, examples of obsolete appliances, hand-casting apparatus, matrices of once notable type-faces, old account books, casting machines, molds, and type in the various stages of manufacture as it was made prior to the introduction of the automatic casting machines, all in glass cases, with suitable explanatory and historical data. The descendants of former typefounders would, doubtless, be glad to a Marder, or the first type made to point set and a standard line by a Schraubstadter; and then imagine how that interest will increase and the value of such a collection be enhanced as the generations pass along. Surely the American Type Founders Company can find a man who would look upon the task of conscientiously creating such a collection as a labor of love — to none other should it be entrusted. Commence the good work quickly, for the grandfatherless iconoclast with his pernicious besom of undiscriminating destruction is at work every day casting these pearls into his swinish ash heap. Is it conceivable that in the old Johnson and Bruce foundries there is not to be

found much that would form a nucleus for such a museum?

Consider also the prestige that would accrue to those establishing it; would they not be building a most enduring monument for themselves, when in a time, not too close at hand let us hope, in this hall of typefounding fame there will be added the names of Phinney, Marder, Barth, Nelson, Benton and — (for let it be broad enough to preserve and reward even competitive merit) — the younger Schraubstadters. Such a collection would be a Mecca, attracting the printers of the world to it, worthy of being well housed; worthy indeed of a niche in the Smithsonian Institution at Washington, a gift to the nation.

However, the important duty of preserving historic data and mementoes of the typographic art in all its branches would better be entrusted to an American Typographical Historical Society, with premises, a library and a museum in New York, in charge of a curator possessing the proper knowledge to fit him for forming a collection and preserving data from all sources, combined with an indispensable enthusiasm for the work. Such a society, supported by the fees of a national membership, under the direction of a committee of veteran leaders, issuing periodic bulletins of its transactions, would attract to itself by bequest or purchase valuable collections which, under present conditions, are dispersed and fall into the hands of people inappreciative of their value.

What have become of the collections of books on typography known to have been collected by George Bruce and his son, David W., Col. Richard M. Hoe, and George P. Gordon, or the "almost unequaled" collection of Franklin portraits left by A. S. Doane? The only authority I know of says invariably "dispersed at his death." And so the long roll might be indefinitely extended. The American Type Founders Company would, doubtless, present the collection it might make to such a permanent society, and so would others I have in mind, thus forming a nucleus of a library and museum. Such a society would lend dignity and do honor to our craft and its practitioners. What man of due reputation and influence will assume the duty and acquire the honor, perhaps never to be forgotten, of originating the American Typographical Historical Society?

[The next article will discuss typemaking in France, Great Britain and Germany, with glances at the influence of each on the type business in America.]

FIRST ON THE LIST.

I am taking ten other magazines and THE INLAND is first on the list.— *E. Lack, Oakland, California.*

Written for THE INLAND PRINTER.

THE MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

NO. V.— BY PHILIP ZACE.

THE setting of the perforating devices is the chief feature wherein the adjustment of the Brown single-marginal folder differs from other machines. The Brown perforators are arranged on a shaft which is geared to and driven by the fold rollers, while the Dexter perforators receive their motion through contact with the fold rollers. The circular knives are keyed to revolve with the shaft, but their adjustment laterally is controlled entirely by the movement of the carriage. When the carriage is extended to receive a larger sheet of paper the perforators slide on the rod and adjust themselves automatically to the grooves. The adjustment of the tapes is similarly controlled. There are "headers-up" or kickers arranged close to each fold stop which regulate the position and proper alignment of the sheet over the bite of each succeeding pair of fold rollers. These must be properly timed with their respective cams.

The adjustment of the slow-down, previously described, in relation to machines of other makes, is also applicable to the Brown slow-down in most instances. In this machine the slow-down consists of a rubber-tired shoe attached to an arm, which

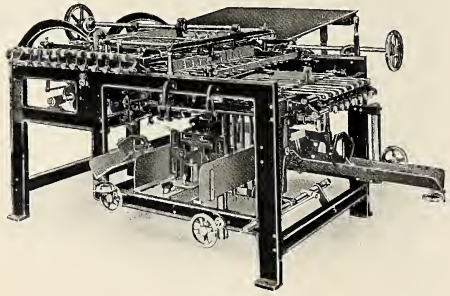


FIG. 21.

revolves on a shaft. The device is often known as an "elephant foot." It must be timed so that the shoe will come in contact with the sheet just before it strikes the first-fold stop. The timing is done by the adjustment of the cam-wheel, as previously described.

Fig. 21 is a cut of the Brown improved "Togo" jobber. It performs its work both in regular and oblong folds and it may be adjusted to handle either six, eight, ten, twelve, sixteen, eighteen, twenty, twenty-four or thirty-two page signatures. There are a number of folders of this class now on the market, each possessing its own



NEAR HOT SPRINGS, ARKANSAS.

More water glideth by the mill
Than wots the miller of. — *Shakespeare.*

Plate by The Inland-Walton Engraving Company.

peculiar advantages. It would be impossible to describe minor details of construction relating to all of these in the limited space allotted to the subject, and the amount of matter necessary to do this would be confusing, rather than instructive. It is true that the operator may be confronted with certain difficulties of adjustment not covered in these articles. With these facts in mind, THE INLAND PRINTER will lend the assistance of its experts to all operators who are earnestly interested. All questions relating to the adjustment of folding machines will be answered either by personal letter or through the columns of THE INLAND PRINTER.

A brief description of the Fuller marginal folding machine will be taken up here in concluding a chapter on the adjustment of convertible jobbers (Fig. 22). This machine will fold eight, twelve, sixteen, twenty-four and thirty-two page signatures — all right-angle folds. The layouts for

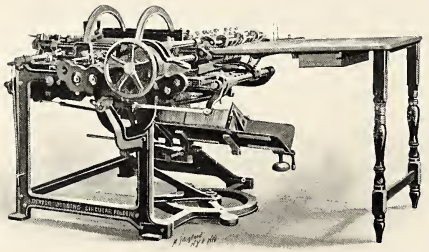


FIG. 22.

these forms are the same as for other machines. It can also be adjusted to make the first and second folds at right angles, and the third fold parallel, making what is known as a "two-on sixteen-page signature"; it will make right-angle first, second and third folds and the fourth fold parallel, thus delivering thirty-two-page signatures two-on. It will deliver first and second folds parallel and a right-angle third fold, making an oblong, or what is known as a "music-fold" signature. This machine also has poster attachments and a complete equipment of perforators which open the edges and heads so that the lightest or heaviest paper can be folded at full speed without a wrinkle. All the improvements, such as side registers, sheet straighteners and sheet retarders, for automatically and perfectly registering the sheet, are also contained in this machine, and the methods of adjusting these devices, as related in describing other folders, are applicable also. By reason of the complete system of perforating, it is possible to fold heavy coated paper into solid thirty-two-page signatures without inserting.

SPECIAL IMPOSITIONS FOR SINGLE MARGINAL FOLDERS.

Most stonemen and folder operators are familiar with the regular impositions for single marginal machines. All of these diagrams are shown in the usual layout sheets. A careful study of the folded sheet as delivered by this machine suggests

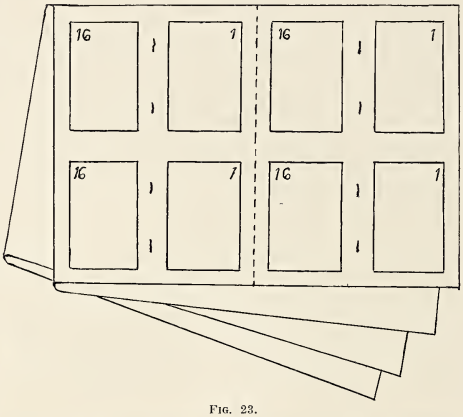


FIG. 23.

means of producing other results by specially imposing the forms. Ingenuity in this respect may increase the capacity of the machine, reduce folding or save inserting, trimming and binding.

Oblong sixteens may be folded on a regular jobbing machine without converting it into a parallel folder by imposing two consecutive signatures after the manner of a two-on make-up. Page 1 of the first signature and page 17 of the

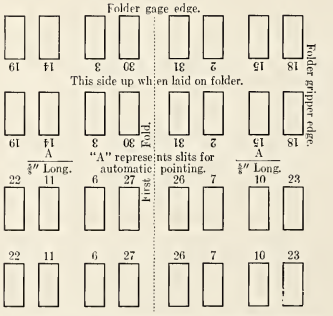


FIG. 24. This represents a printed sheet of oblong 32 pages, two on.

second signature are made up as one upright page and the balance of the form is imposed in a similar manner. The layout is the same as a right-angle sixteen-page imposition for the folding machine. The form will be delivered two-on, to be cut apart and gathered.

In large runs of pamphlet or catalogue work, it is always desirable to print and fold as many forms to the sheet as possible, to the extent of utilizing the full capacity of both the printing-press and the folding machine. It would be

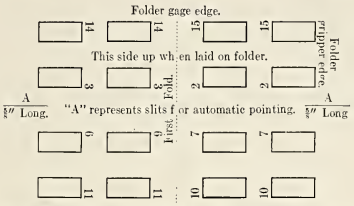


Fig. 25. This represents a printed sheet of oblong 16 pages, two on.

preferable to print and fold a hundred-thousand edition of a small sixteen-page booklet in gangs of four-on at one operation. This can be done on any single marginal machine, if the sheet is not larger than the range of the folder. The form should be made up as an eight to be delivered flat at the second fold. Each of the large pages of this form should consist of eight individual pages of the book, as shown in Fig. 23, a folded sheet. This represents page 8 of the eight-page signature as delivered by the machine. The covers are

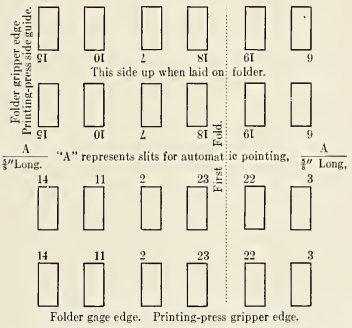


Fig 26. This represents a printed sheet from an inside form of parallel 24's, two on, book imposition.

printed four-on flat and gathered with the signatures, without creasing. The stapling is done four-on on a flat-bed, wire-stitching machine. The books are then trimmed four-on, cut into two sections on the dotted line and then creased two-on, either by hand or in a creasing machine.

Fig. 24 is a printed sheet of thirty-two pages, two-on, which is also designed to save folding and binding. This sheet is adaptable to a single marginal folding machine.

Fig. 25 is a printed sheet of sixteen pages, two-on.

Fig. 26, a printed sheet of a twenty-four-page form, two-on, is a valuable layout for bookwork and it presents an economical way of folding calendar pads on a machine. For calendar work the pages are made up in the same order with every alternate page blank. The completed sheet represents two yearly pads. This scheme saves gathering and collating — two important items.

A complete twenty-page form can not be folded on a machine. It should be made up as a sixteen and a four — the row of four to be cut off and folded by hand. To produce this form as a work-and-turn, it is necessary to transpose the outside

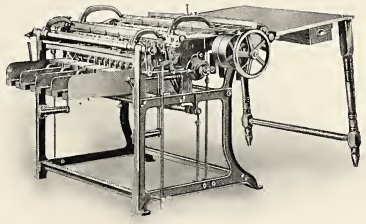


Fig. 27.

row of four pages before the sheet is backed up. A straight twenty, with an infold, is a tumble form and must be folded by hand.

Most railroad folders can be folded on a single marginal machine, with parallel attachments. These forms usually require one or two additional folds by hand, or on a creasing machine. Creasing machines are made for one and two fold work and they are usually designated as circular fold-

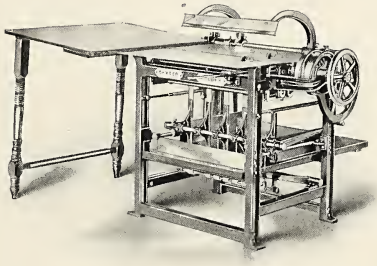


Fig. 28.

ers. They are used chiefly for creasing covers, folding circulars and to make the final fold or folds on special work which can not be completed on standard book folders.

Fig. 27 is a machine of this character, designed to make two parallel folds. It will handle sheets 9½ by 24 inches to 18 by 28 inches in size.

Thirty-two-page forms are often folded on three-fold machines by making the final crease

by hand or in a creasing machine. Fig. 28 is a 24-inch single-fold or creasing machine.

A sixteen-page signature may be made up to be folded three-on if the pages are almost square. It is difficult to handle deep pages three-on on a folding machine. The layout for such a form is the same as Fig. 25; with another set of duplicate pages added. This is a parallel fold. The layout is also adaptable to single signatures of extra deep

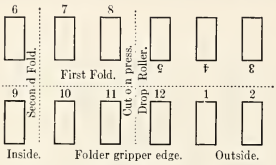


Fig. 29.

pages — a style of page frequently used for price-list booklets.

By rearranging the layout of the pages, the preceding fold may also be converted into a special deep twelve-page folder, which can be worked on a single marginal machine (Fig. 29). Twelve-page signatures, two-on, may be produced by this same fold. Signatures of this character must be side-stitched.

(To be continued.)

MISTAKES OF AUTHORS.

Dickens was by no means infallible. He put the new moon in the east in the evening; he came to grief over the Dingley Dell cricket match; he made Tony Weller's second wife Sam's mother-in-law; and he described how, in the depth of winter, Mr. Squeers set his unfortunate boys hoeing turnips. That delightful modern humorist, Mr. Pett Ridge, in "Lost Property," makes one of his characters deposit ninepence in the Post Office Savings Bank, forgetting, for the moment, that only even shillings will be accepted; and in another book has written of cricket, in which there were "cuts" and "drives" to leg. Sir Conan Doyle, in one of his best Sherlock Holmes stories, makes a scheming lawyer draw up a will in favor of himself — a proceeding which would make the document invalid. The late John Hollingshead, in "The Story of Leicester Square" perpetrated a glorious bull, writing, "When Lord Mohun was killed he was living in Macclesfield House, Gerard street, Soho, at the back of Leicester House, a site now occupied by the defunct Pelican Club." Even Sir Walter Scott made blunders, and in his fine ballad of "Young Lochinvar" he has this passage:

> So light to the croup the fair lady he swung,
> So light to the saddle before her he sprung;

which is a feat of horsemanship utterly impossible.— *T. P.'s Weekly.*

ANTE UP!

Just one minute — the astronomers tell us that a monster comet is heading for the earth with the speed of an express train. Only a few days remain in which to pay your subscription to the *News* — we don't want to have to trot all over hell to find you.— *Andalusia News.*

Written for The Inland Printer.

MODERN BOOKBINDING.

BY A. HUGHMARK.

NO. XVI.— CATALOGUE AND PAMPHLET BINDING.



MODERN advertising literature has grown both in bulk and variety within the last few years to such an extent that special binding methods have become necessary for the preservation of this class of work. The object of these bindings is not only to hold the sheets together in the cheapest possible manner, but to do this in a way that will prove attractive in itself.

The simplest form of pamphlet binding is the one known as saddle-wired; but even here there is a chance for good work. The stitches can be made to clinch evenly and fit snugly in the fold, distributed at proper intervals from each other so as to hold the sheets firmly all along the line of the back. The trimming can be done so as to show proper margins and absence of clamp marks. The folding should always be in register, even in cheap printed matter. When trimming in a cutting machine, the side gage should be used for the ends — the leaves must be square. No pamphlet binder that cares for his reputation can afford to send out work that has the top and bottom of each bunch, as it comes from the machine, fingermarked or otherwise soiled, or that shows rough edges from a badly marred cutting stick. It takes but a little time to cut up enough waste for a particular job to use as protecting sheets on each side of the bunch before cutting.

Oblong pamphlets or those that have covers containing rule designs require great care in trimming. It must not be taken for granted that the printer has made the covers fit to the body matter; even if he has, they might have been fed in badly or the guide might have slipped after final O. K. All covers should be measured in the bindery, in every instance, both as to width and length of its design, compared to the type-page of the body. Any defect of position can be remedied before they are folded by cutting off the head margin or one side, or, as has happened to the writer, where the sheets had to be trimmed off at the top before inserting into the covers.

In the case of extended covers, the body is trimmed before stitching so that the cover will extend at least one-eighth of an inch all around. The inside is then inserted into the covers and jogged up evenly on one end. The stitcher-operator adjusts the cover when picking up for the stitcher. When silk floss or knitting silk is used, each bunch of books is marked by scratching a line at the beginning and end of the stitch. This

insures a uniformity in the length of all stitches. Side-wired books are covered by gluing the backs of the books in a stack and then taking each one and laying it parallel to a mark, either printed or sawed, indicating the back. The thread-sewed book is covered in the same manner by wrapping the cover around the back of each, after which the backs are well rubbed and the books stacked up squarely. The best covering for this class of work is done by pasting, or more correctly, gluing the covers down on the sides. The covers have to be scored in four places, two scorings for the thickness of the back and one scoring on each side of the back for a glued-down hinge. The width of these hinges should be enough to cover the wire staples, leaving nothing to show but a clean joint and leaf when the cover is thrown open. A good method to use for this kind of covering is to have two girls work together, one taking a few books and running them out slightly before gluing off the backs. The glue will then run in a little on each side, enough for each hinge. The backs should be held down firmly by means of a strip of board laid across the top while rubbing down. That will also help to tack down the scored hinges.

After the books have been in a stack long enough to dry, each book should have its covers folded back. If any of the covers during this process should open up beyond the hinge, this should be tipped down by inserting a glued strip and then withdrawing the same while pressing down on the cover. A sewed book, having its first and last sections reinforced before gathering and then covered in the above described manner, will be as strong as a hard bound book.

The ordinary cotton strip reinforcing is both unsightly and useless; it serves to hold the cover to the first leaf only, and as all the strain is thereby put on that one leaf, it soon tears away from the book. Then, too, this kind of work can not be done with uniform neatness; the finished book very often contains strips with unraveled edges or some that are loose in different places. Others will be laid on unevenly and many will show paste spots on the inside of cover or on the books.

Punched and cord-tied books can be either gathered or inserted. If they are gathered, it is better to side-stitch them with one staple first and then glue the backs, covering in the usual way. The books are then firm in the covers and can be punched for cord complete in one operation. Cord-tied books are always hard to open and especially if they have stiff covers. It is therefore best to score the covers with a wide enough hinge to allow for the holes and cord. The covers will not only open up more freely, but the reading matter will become more accessible.

Paper-covered books, sewed and provided with end-sheets for pasting up on the covers, should be glued up on the backs with thin glue and pounded down before covering. If the covers are to extend over the edges, the book should be trimmed to the proper size before covering. A mixture of paste and thin glue is the best to use for pasting



RUSSIAN CARPENTERS AT WORK.

up. Embossed covers can not be pressed without mashing in the raised impressions, and in such cases, each side will have to be rubbed down by hand, after which the books should be laid between strawboards to dry out smooth.

With cut-flush work the pasting up should be done before trimming. Flexible cut-flush cloth covers consist of pieces of cloth wrapped around each book, without boards. The books are sewed, end-sheeted, glued up and hammered down with slight rounding. If the covers have to be printed, this should be done on the unlined cloth first. When these have had time to become thoroughly dry they are laid up and glued off the same as for casemaking. A small stack of books are glued again on the backs with thin glue, after which the glued off cover-piece is laid on and drawn over tightly. When ten or twelve are covered they should be put into a small hand press and nipped, then taken out and rubbed down on the backs and finally spread out between strawboards to dry out.

The most reliable method to follow when covering books that have printing on the cloth is to fold the cloth covers in the center and leave them open, thus giving each piece a crease that will correspond to the center of the book back. The end-sheets best suited for this purpose should be of a good weight and dull finish. The fibers of the paper should run crosswise of the warp in the book cloth, to prevent warping or curling.

In connection with pamphlet and catalogue work, it should be borne in mind that buckling of any sheet in the third fold will spoil the appearance of the book. Be careful in folding to have running heads, if any, register; otherwise register the folios. Do not break highly finished paper when taking register for folding. In cutting up sheets for folding that have four pages to wrap around eights or sixteens, these should be cut to register at the head.

Do not clinch the wire staples too tight on enameled stock that is saddle-wired, because the inside fours will tear out when the pamphlet is opened. Do not let the paste run into the book when sewing, nor the glue when covering. Clip off the loose ends of the threads after sewing before covering. Smash all paper-covered books before and after sewing. Use waste leaves to protect work printed on fine paper on the outside of the bunches after gathering, sewing, smashing and cutting; when covering take them off after the books have been glued off.

Two-piece covers for side-stitched books should have cotton or book-cloth strips pasted on the inside edge of each cover. This is done by running out the covers as for tipping and after pasting off a small lot the strips are laid on each, and all of them rubbed down. These strips should be three-quarters inch wide and by sawing in an indentation in the covers one-quarter inch from tipping edge, at each end, uniform tipping gages are secured for the whole lot. These covers are again run out and pasted on the stripped sides for tipping on to the books.

Two-piece covers for machine-sewed books are reinforced in the same manner, but instead of tipping the covers on top of the first or last forms, as for side-stitching, they are in this instance tipped around the signatures; in other words, the cloth strip is tipped on the back edge of page sixteen of the first signature (if made up in sixteens) and wrapped around the back so that it covers the title or first page. When the book is sewed the needle passes the threads through the reinforcing, thus making the cover a part of the signature. It will also open up to the back freely after the cloth back is drawn over the outside.

(To be continued.)

WHEN I WAS A KID.

When I was a kid I served a term
As roustabout in a printer's firm.
I washed the rollers, and I mopped the floor,
And I put the dirty water o'er the sanctum door.
I balanced the pail so carefullee
They gave me the ruler where it hadn't ought to be.
(Repeat the last two lines staccato.)

P. S.— The Boss bought a new suit.

I put a pillow beneath my vest,
And somewhere else — you may guess the rest.
I pulled the proofs on the old hand press
And mixed the "takes" in a lovely mess.
I mixed them up so fine and free
They dusted my clothes quite thoroughlee.
(Repeat, somewhat sustained.)

P. S.— The comps. also dealt me a hand or two. Clubs trumps.

In course of time I learned the case;
Each little type in its little place.
The very first time I filled my hand
I threw it in to beat the band.
I filled that minion case so quick
I made all former records sick.
(Repeat, making a noise like a pied form.)

P. S.— It was eight-point at that, too.

I kicked the Gordon and I wrapped the mail,
And I dumped the paste in the old lye pail.
I washed the forms when the run was through,
And rinsed them off with Le Page's glue.
O, I rinsed them off so thoroughlee
They spent a week in looking for me.
(Repeat, loud as possible.)

P. S.— They threw it in with a hammer.

They showed me type lice in the face,
They sent me for an italic space.
I found it on a tamarack
And brought it back in a canvas sack.
I threw the sack upon the floor,
Then bolted out and locked the door.
(Repeat, in full chorus.)

P. S.— O yes, I forgot. It was a hornet's nest.

Now devils all, you may take it from me,
If you want to rise to the top of the tree,
Forget your past, resplendent though it be,
And drive it out of your memoree.
Forget your past when you lay it away,
For you may be foreman of a shop some day.
(Repeat, *ad lib.*)

P. S.— Capital punishment of devils is discouraged.

— *Bert Twigley, in West's Message.*

Written for THE INLAND PRINTER.

COMPOUND WORDS.

BY F. HORACE TEALL.

NOT only is there much difference between different publications with regard to compounding, but the confusion is as old as the language and will probably last as long as the language does. Nevertheless, most people, and especially printers, prefer some sort of system. It does not seem likely that any printer would object to having a practice established that would obviate the necessity of frequent corrections in type, and it does seem likely that all printers will assent to the assertion that such a practice must be based on analogies that everybody can understand and apply with the same result. How can a reasonable practice be secured?

The greatest difficulty lies partly in the fact that most persons will not take the necessary trouble to study the subject, and partly in the fact that uniform practice is not demanded in the interest of clearness. It is only in the printing-office that such matters of form have any real importance, for of a thousand terms that cause question perhaps more than nine hundred can be read with only the one understanding of sense no matter what form they have. This makes matters just so much worse in a printing-office where any care is exercised as to compounding, especially in one with two or more proofreaders, unless a very full list of forms is taken as a guide and closely followed. Such full lists are not in existence anywhere outside of the big dictionaries, except, so far as we know, in one book that comparatively very few people will follow closely, because it uses many more hyphens than the people wish. Before inquiring why that is so, let us see what is the difference between the dictionaries, which are selected for such comparison mainly because so many grammarians dismiss the question merely with a direction that one who wants to know in what form to write a term should consult the dictionary.

By far the largest number of terms in doubt are pairs of nouns. Many people think, as John Earle says, that mere position before another noun converts a noun into an adjective. Many others hold that under certain conditions, depending on the nature of the word-meaning, the first of the two retains its mere naming function, and the two together form a compound noun. The International Dictionary uses the forms that support the first of these opinions, and the Century and Standard use the other forms. The International, however, occasionally yields to what might easily be proved a false conception of the demands of usage, and joins the two nouns with a hyphen, and more frequently makes one continuous word of them, so that one taking that dictionary as authority would, if he really followed it, write with such confusion as dining room, drawing-room, countingroom, sewing machine, shoeing-horn, laughingstock, bell bearer, armor-bearer, cupbearer, and even such conflict as gold beater and gold-beating, and sea mell and sea-mew, merely different forms of the same word. Every one of the terms here instanced has a hyphen in the other two dictionaries.

This reference to the International is not written as faultfinding, but simply to show the variance in policy of the different works, and almost as much to note the great comparative frequency of hyphens in the other works.

For some occult reason, aversion to the use of the hyphen is very common. This aversion can not be universally based on æsthetic grounds. Certainly some people do say that frequent hyphens spoil the appearance of print, but many others find nothing worse-looking in them than in any other character or mark. Very likely the underlying fact is that the use of hyphens is thought to be too troublesome. Whatever may be the preference of any one, undoubtedly all practical printers will agree that it is comfortable and economical to have in the printing-office a practice that all the workers can apply with like effect, and this is nearly all that is possible of attainment. Even so much can be done only in one way, namely that of having at hand a record of all forms chosen for use. Practically every style-card or style-book ever made contains a rule or direction with regard to compounding, and absolutely every one of them is utterly inadequate. One was never made that did not leave thousands of terms open to question, with the result that different proofreaders mark in different ways, and even one proofreader who does not vary in his marking at least slightly is hard to find. Thus it is a very common occurrence that the compositor who learns to-day, through the proofreader's marks, that a certain term should have a hyphen, has to take out that hyphen to-morrow, and then of course he is not sure which way it will be next time.

A recent grammar, claiming to be the most scientific one ever made, gives in its preface a striking exemplification of the difference in opinions as to word-classification. Its author says that in speaking to a meeting of philologists he incidentally said that "cannon" as used in "cannon-ball" is not an adjective, and some one answered that of course it is not, and no one could possibly assert that it is. A noted teacher and author of

grammar-books thereupon said that the word is an adjective, and it surprised him greatly to find any one who could think otherwise. When scholars can so markedly disagree on such a point, of course others will do so, for each kind of thought inevitably attracts a large following. But these two ways of classifying indicate a large body of consistent practice for each of the two schools, one favoring compounding and the other separation. Besides there are many people who try to decide by usage each term that is questioned, and this can never be done with any real assurance, because there is no determinative usage.

Benjamin Drew came close to truth when he wrote: "To search for authority in the matter of compounding words will avail next to nothing. . . . In regard to compounding (by which we mean inserting the hyphen between the parts of a compound word), the proofreader is left to his own discretion, and can do very much as he pleases. He should, however, adopt some method by which he can approximate to uniformity in his own work; for as to agreeing with anybody else, that is out of the question."

This is not quite true as to agreement, for the lack of it is a little less extreme as to general method than he says it is. It is altogether likely, however, not only that no two persons would make independently lists that agreed all through, but also that no one person, having made a large list, would repeat the forms of that one exactly in making another without the first at hand for reference. Of course this would not be so if the list were merely copied from a dictionary.

No method depending on memory can possibly work as satisfactorily as one formulated in a full record. No record can possibly be made that will suit everybody. No person can make a record without exemplifying some one of the possible methods. What, then, can be done?

The list spoken of above contains forty thousand terms, all given, of course, with the form its author prefers. A proofreader having a copy of it, and using it freely, need not think he is bound to accept all of these forms, but, on coming to one that he or his employer does not like, he could mark a change in the book and thus soon have a record of all decisions made for his practice. He would thus have an excellent drill without much effort, that would soon make it almost impossible for him to vary in his marking, as many do, to the cost of compositors and employers.



Plate by The Inland-Walton Engraving Company. Grand Trunk Railway System.

CAMPING IN ALGONQUIN NATIONAL PARK OF ONTARIO.

Written for The Inland Printer.

PHOTOGRAPHIC WATER-MARKS.

BY RUDOLPH HENRY.



HIS title will no doubt convey to many readers a medley of impressions, especially in America, but in Europe the subject is in itself not new. It has recently come before the public in an interesting manner through a paper on "The Development of Water-marking in the Hand-made and Machine-made Papers," presented before the Society of Arts, London, by Mr. Clayton Beadle, on May 16, 1906. Mr. Beadle's paper gave a thorough exposition of the different steps incident to the formation of water-marks, from the earliest inception to the present day; his paper is replete with historic and technical interest. The explanation of the province of the "dandy" rolls in machine-made, and the mold of hand-made, papers is extremely interesting and instructive to the novice, as well as the professional. Many historic specimens were shown and a particularly up-to-date method of exposition was presented to the auditors of the meeting by Messrs. T. J. Marshall & Co., who had a complete working model in miniature of a papermaking machine.

The portion of the paper relating especially to the present subject was brought out in the discussion that followed its reading. At that time Sir Henry Trueman Wood, secretary of the society, called attention to the existence of a quasi water-marking method for the production of such effects in *graduated* tones, through the medium of "Woodburytype" molds, formed photographically.

Sir Henry said, it might be interesting if he supplemented the details of the paper by referring to an invention, which was now nearly forgotten, for the production of a kind of spurious water-mark by photography. The late Mr. Walter Woodbury, well known as the inventor of the Woodburytype process, suggested a means, many years ago, of producing apparent water-marks on paper. The process he adopted was the use of what was known as a gelatin relief, the meaning of which photographers well knew. To those who were not familiar with photographic processes it might be sufficient to say that it consisted of a film of hardened gelatin, in which the lights and shades of any photographic picture were reproduced by varying thicknesses of the gelatin. When such a film was placed in contact with a sheet of paper, and the two were subjected to heavy pressure, the result was that the paper was more impressed where the gelatin was thicker, and less impressed where it was thinner, and a picture exactly like a water-mark, representing the original photograph, was produced. He believed that when the invention was first brought out bankers and others who depended upon water-marks were rather concerned about it, because they considered it might lead to forgery. As a matter of fact, however, when the paper, the "photofiligrane," as it was called, was damped, the whole thing disappeared, and the minds of the bankers were no doubt thereby relieved. He did not think the invention had any practical application, and doubted whether it was ever of any great value. It was certain, however, that any photograph, however complicated, could be reproduced on paper in the form of an ordinary water-mark. He thought it worth while to mention the invention, because of the extreme ingenuity which was exercised. He thought it would be of interest if the author could state why "water-marks" were so called, because they did not seem to him to have anything to do with water at all, but were merely marks made on paper in the course of manufacture.

By way of interpolation, anent Sir Henry's query regarding the word "water-marks," Mr. Thomas A. Marshall thought the term "water-mark" originated from the fact that the water left the pulp in the process of manufacture where molds were used, in which suction was employed, by the action of lifting the mold from the pulp; and in a machine the mark was impressed by the suction of water through the vacuum boxes.

Others of the auditors enlivened the discussion by remarks bearing on the various phases of water-marking.

Mr. Beadle, in reply, said he was much interested in the remarks made by Mr. Spicer, chairman of the London County Council, who referred to the lack of individuality in modern water-marks. He thought it was somewhat unfortunate that so many of the present-day marks consisted merely of names, and that the beautiful devices which were still in existence, connected with different sizes of paper, were not more frequently used. If the general public were better acquainted with the fact that the sheet of paper on which they were writing bore a water-mark design, probably there would be a greater encouragement for papermakers and stationers to introduce artistic designs, and to vie with one another in so doing. With regard to Sir Henry Wood's remarks on Woodbury and his process, he thought it possible that if one took the definition of water-marking as being the act of imparting to paper a distinctive mark in the course of manufacture, it would be impossible to employ the Woodbury process in that manner. It was difficult to discover at what period water-marks were so described, but in Sotheby's and other books of that period the mark

was described as a paper-mark, and as late as 1855, in Herring's book, occasionally he talked about a paper-mark, and at other times about a water-mark. He did not know when the name "water-mark" was first applied, but he thought it was very appropriate, because it was only possible to produce a water-mark in a paper while the paper was in a very wet condition, and while it contained a great deal of moisture. When once the moisture was removed from the paper, the fibers, once and for all, retained their relative positions; but when the paper was still in a wet condition, if some design or device was placed in contact with it, the fibers could be laid aside and so produce the water-mark: in other words a water-mark could only be produced in a paper when that paper contained a good deal of water; and when once the water was removed, that mark became indelibly fixed in the paper for all time, and no amount of moisture would have any effect upon the fibers. With regard to Woodbury's process, the moistening of paper after it had been embossed, stamped, or otherwise treated after it was completely made, would restore the paper to the condition in which it existed at the time it was first manufactured. Thus if paper was glazed, and dipped under water, the glazing came right away, and the paper swelled up to its original thickness, just as it came away before it passed under the glazing rolls. Although the fiber might be made to lay down and produce a lovely gloss and luster by mechanical means after it was made, still it had an inherent power of rising up and restoring itself to the condition in which it existed before any mechanical process was applied to it. He could quite understand that beautiful effects were obtained by Woodbury's process, which consisted in compressing the paper at different points in varying degrees, the compression of the fibers producing a greater transparency, and the amount of compression varying the transparency to almost an unlimited degree; and no doubt it ought to be capable of useful and artistic treatment.

In the *Journal of the Society of Arts*, of May 25, 1906, under the correspondence section, addressing the secretary, Mr. J. Melrose Arnot says: "I have been deeply interested by Mr. Beadle's paper on 'The Development of Water-marking in Handmade and Machine-made Papers,' and particularly by your own reference to the Woodbury process, or 'photofiligrane,' because I was not previously aware who had originated this beautiful method of producing designs resembling water-marks in paper. You express a doubt as to the invention having any practical application; but here, apparently, as in so many other instances, we find a Britisher making the fundamental discovery and the application of it benefiting some continental country only. This process is used pretty extensively in this country and Austria, and I have seen many examples of most beautiful and artistic work, not executed merely for the pleasure of the thing, but on the commercial scale. Many of the best German, Austrian and Italian note papers of the qualities most in demand are so marked. The gelatin relief is made on stout, tough cardboard (of course any number can be produced cheaply) and passed together with the paper to be impressed through a machine very similar to a plate-glazing calender."

Mr. Arnot further says that for simple designs in linework, a substitute for the gelatin relief was sometimes used, in which threads, different thicknesses of paper, etc., were pasted to a suitable foundation of cardboard and the whole covered with a thin protective sheet. He also referred to the fact that Mr. Beadle had held strictly to his definition for the purposes of his paper; but between the real "water-mark" and the Woodbury process there lie gradations which belong more or less to both classes.

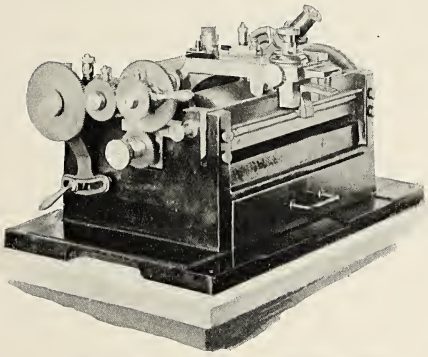
One method, having a dual interrelation, is of German origin, and is largely used in England. It is covered by Behrend's German Patent No. 149,174 and consists of a series of small type-wheels which bear the letters or the design that are mounted above the top roll of the second press where they rest on the still very moist paper at the point of its closest contact with the roll underneath. The type-wheels are held on the moist paper by weighted levers so that they rotate with the band of paper, and because of the pressure being variable, due to a variation in depth of characters, the moist paper is thinned more or less according to the design. Papers so marked are found on examination to have their fibers displaced somewhat, as when dandy rolls are used. Mr. Arnot says he has also produced similar results on the first and second drying cylinders of the machine.

Apropos of this interesting exposition, it will be of interest to the trade in general to learn from the accompanying illustration that an automatic "mold" producing machine, which enables any printer having an embossing press to turn out quasi water-marked effects, has been perfected and built for the market. This machine is compact, about 11 by 18 by 10 inches in size, and it is driven by suitable belting connection or a one-twelfth horse-power electric motor. The machine is not experimental, but an actual practical device that has been brought out by Mr. N. S. Amstutz, of Chicago.

The province of the machine is to enable the printing craft to produce all sorts of photographic relief effects on their regular papers without

recourse to the paper-making stages, referred to in the previous portions of this article.

Mr. Amstutz has spent many years in the development of this device and has gone into the investigation of a simple production of gelatin reliefs in a critical manner. He has, in the course of his researches, found the law relating to gelatin composition sensitized with bichromate salts, and the resultant relief under various light intensities and distances and times of photographic printing. He has produced "home-made" tissue that eliminates the removal of the usual paper support of commercial carbon tissues. While Mr. Amstutz does not claim anything fundamentally new in the production or use of his special tissue, it does however simplify the production of a gelatin



AMSTUTZ'S MACHINE FOR CUTTING WATER-MARK MOLDS.

relief. In the ordinary course of things any good commercial tissue can be used, one that has a good body of gelatin with much less pigment than is usually found in carbon tissues. That put out by the Autotype Company, of London, known as "Woodburytype," is easily manipulated and gives good reliefs of from .002 to .0025 inch.

The method referred to by Sir Henry Trueman Wood is really the "Woodburytype" process adapted to "water-marking" purposes. This process is based on the interesting fact, discovered by Poitévin, of Paris, in 1855, that when a stratum of gelatin is impregnated with a bichromate of potash solution it becomes sensitive to the action of light; where the light acts strongly the gelatin becomes hard, in fact, insoluble; where there is no light action it remains soft or soluble, and where the light has acted partially, a proportionate hardening effect ensues. When such a film is washed in hot water at about 110° F. (43.5° C.) the soft or soluble portions wash away and leave the hard parts remaining on the supporting film, which may be of any suitable character. This film with its attached relief, when the gelatin is dry, becomes a mold with which the beautiful Woodburytype photographic effects are produced by impressing the gelatin mold into a sheet of lead. On a suitably surfaced paper a given quantity of colored liquid gelatin is placed and on top of this the lead mold with its impressed face downward. The paper with its pool of warm gelatin is, of course, placed on a perfectly flat and smooth plate so that when the lead mold is pressed onto the warm gelatin the surplus is squeezed out, leaving within the "safe edge" margin walls of the mold a quantity of the colored gelatin that, in thickness, is directly proportional to the light action of the photographic negative from which the carbon print was made. As soon as the gelatin has set, the mold is removed and the print trimmed and mounted in any suitable fashion.

It should be observed that the variation in thickness of a colored medium is the means employed to translate or interpret the variable intensities of discoloration of the photograph or negative.

The use of the gelatin relief or lead mold, unless a very thick electrotype shell is made therefrom, is limited to rather soft materials. It is here that Mr. Amstutz's device comes into practical use, as his machine prepares, in an automatic manner, celluloid replicas of gelatin or other reliefs that will stand any amount of pressure for either dry or moist embossing, so that the practical advantages of photographic water-marks can be secured by all the allied graphic arts crafts. Duplicates are made in from two to five minutes; in fact, the production of the first replica does not require any greater time.

The process is exceedingly interesting and it possesses no small amount of scientific novelty. The device is substantially similar to the engraving machine Mr. Amstutz exhibited at one of the conversaziones of the Royal Institution of London in 1899. It is what might be denominated an engine lathe adapted to reproduce photographic subjects. In fact, Mr. Amstutz did demonstrate the possibility of this kind of reproduction in Paris in 1903, when with simply a supporting drum to hold the gelatin relief under an overwound celluloid film he actually engraved a photographic subject on an ordinary lathe, using a V-shaped screw-threading tool in the tool post with which to do the grooving or engraving. The device has also been referred to by scientists as doing for light what the phonograph does for sound.

In brief, the mechanism consists of a rotating drum on which the relief and reproducing sheet are secured; adjacent to the cylinder is a laterally traversing carriage which is adjustable vertically so as to bring an attached engraving tool closer to

or farther from the drum. The carriage is caused to traverse lengthwise of the drum by means of a feed screw which engages a spring nut of the carriage. The ratio of the velocity of rotation of the drum to the speed of carriage traverse is controlled by removably interconnecting gears, reaching from the feed screw to the drum shaft.

The adjustment of the cutting tool is under the control of a micrometer screw which shows the amount of the adjustment directly in ten thousandths of an inch. A medium-power microscope with a miniature incandescent lamp placed adjacent enables the operator to examine the effects of the adjustments while being made.

Mr. Amstutz found great difficulties in procuring drums that were parallel and truly concentric. After spending much time and investigation on the matter, through attempts to grind the drums with special grinding fixtures, he hit on the happy expedient of making a veritable lathe out of the machine itself and allowing a tool held on the carriage to true up the drum while all the parts were in their regular operative relation or position. At any subsequent time should a drum become damaged by indentations, a half-hour will again put it in as good shape as when new.

As showing the remarkable sensitiveness of the machine, beautiful transparencies have been made which comprise in their production some very novel features, and it is believed work of this class was never done before. A sheet of transparent celluloid or pyralin of .005-inch thickness has cemented thereon another sheet, somewhat thinner, of any suitable color, the two forming when dry an integral part, the one of the other. Such a sheet is placed, colored side up, over the gelatin relief and held on the drum by means of suitable fastenings. The cutting tool is then set down just far enough to cut through (but no more) the colored sheet radially opposite the highest elevation of the photo relief underneath. This forms a high light, and opposite those portions of the relief that are of a lower elevation the colored sheet is cut away proportionately less, varying with the tone values of the original photograph. The drum rotates at about 120 revolutions per minute.

Here, then, is a lathe-produced photographic reproduction possessing all the subtle variations in tonal values of the original, formed by a subtractive method, that by cutting, removes the pigment from out of the reproducing sheet, instead of putting it on, as in most of the existing methods.

This transparency method might be used to advantage in the production of three-color work by cutting three colored sheets and superimposing them. Gelatin films can be used as well as celluloid if the precaution is taken to have them made with a small amount of glycerin, which will prevent their breaking or cracking when they are to be fastened to the drum.

These machines, specifically adapted to the uses outlined, are constructed and ready for the market, and it is believed they will find a large field of usefulness as soon as their substantiality and simplicity are understood by the trade. They open up a considerable field, at present not extensively occupied, and when placed in the hands of a resourceful operator will produce a great variety of novel results.

LONDON PHOTOGRAPHIC EXHIBITION.

The Royal Photographic Society of Great Britain will hold its fifty-first annual exhibition this year from September 20 to October 20, at the new gallery, 121 Regent street, London, W. The scope of the exhibition is disclosed in the following schedule:

I. Pictorial photographs.

II. Scientific and technical photography and its application to processes of reproduction.

III. Invitation collection of technical photographs and apparatus.

IV. Professional photography.

V. Photographic apparatus and material.

American photographers have not heretofore availed themselves, as freely as they might have done, of the advantage to be gained by placing their specimens on the walls of the Royal Photographic Society salon.

The exhibition will be opened on Wednesday, September 19, by a private view, which is to be followed in the evening by a conversazione. The Selection Committee makes no distinction between members and non-members, professionals or amateurs; this allows a free field for all, with favors to none. Entry forms can be procured from the secretary, Mr. J. McIntosh, 66 Russell Square, London, W. C.

Sections IV and V do not admit exhibits for competitive display and a charge is made for space. No exhibitor can submit for selection more than six photographs. All exhibits must, if in packing cases, reach the gallery, 121 Regent street, London, W., by September 5.

COURTSHIP IN CAMERA.

She gave him a cabinet photo;
He gazed for a moment or two,
Then pleaded: "Sweetheart, won't you give me
The lovely original, too?"

"If you're *positive*, dear, that you love me,"
She said, through a *film* of tears,
"A *negative* I can not give you;
I'm yours to the end of our years."

So the courtship was quick to *develop*
Their marriage was *fixed* up in town,
And now in a middle-class suburb
She is steadily *toning him down*.

— *Camera House Journal.*

BLANK VERSE.

"Good morning, Mr. Austinburne," said the editor, as the poet entered the sanctum. "Some more of your blank verse, I suppose?"

(We use the word "blank" that we may not shock readers by repeating the real expression made use of by the unfeeling editor.) — *Kansas City Independent.*

Written for THE INLAND PRINTER.

THE STUDY OF ELECTRICAL PRINCIPLES SIMPLIFIED.

BY A. STAPHE.

NO. IV.—MAGNETISM.

THERE is no phase of interest in matters electrical so great and far reaching as that which concerns magnetism. In considering some of the historical and fundamental features of the subject, it is interesting to know that the ancients were familiar with the attractive power of rubbed amber and they were also acquainted with the properties of lodestone. The compass, without which modern maritime interests would be in a sad state indeed, as is well known, depends on magnetism to direct the needle in a north and south direction. The exact date of its origin is shrouded in the uncertainties of the past. It is, however, hard to conceive of an invention that has had a greater effect on the arts and sciences than that of the magnetic compass.

The name *magnet* owes its origin to a place in Asia Minor, Magnesia, situated on the river Maeander, almost directly east, across the Ægean Sea, from Athens. At this place hard black stones *(magnes lapis)* were found which possessed the property of attracting to themselves small pieces of iron. As was their wont, the ancients called the mysterious things magic-stones, and because of this wonderful property these stones became very celebrated.

The name really goes back farther than Magnesia, which was a flourishing city six hundred years B. C., for it was founded by Thessalian colonists from the province of Magnesia on the east coast of Thessaly just south of the present Greek city of Salonika. These colonists were a part of the Greek tribe known as Magnetes.

The Greeks and Romans studied the peculiarities of lodestones (commonly, erroneously spelled loadstone). This name really means "leading-stone." This magic stone of the ancients is nothing more nor less than magnetic iron ore, known as *magnetite*. It was not until about the eleventh century that it became known that if a lodestone of elongated form was suspended from a string it



Plate by The Inland-Walton Engraving Company. Grand Trunk Railway System.

A TRUE STORY OF THE FISH THAT GOT AWAY.
Algonquin National Park of Ontario.

would swing into a north and south position. Lodestone, as an ore, is found in many parts of the world, among which is the Island of Elba, Sweden, Spain and Arkansas.

Magnetism is permanently acquired by steel, after having been in contact with a lodestone. This is known when the steel is dipped into iron filings, by reason of their clinging to the ends of the steel bar; none of the filings adhere to its center. If such a bar is hung on a thread, fastened midway of its length, it will point due north and south.

Prior to 1600, little more than the facts related were known about the magnet. During this year, Doctor Gilbert, a citizen of Colchester, and resident of London, England, published his famous book, "De Magnete." He discovered, by pursuing his observations in a scientific manner, that magnetism was found concentrated at the ends of a bar; these he called poles, and the middle position, where there was no manifestation of magnetism, he named the equator and the imaginary lines connecting the poles were denominated the axes.

In order that magnetic phenomena may be studied, a magnetic needle is used, which is made from a thin, flat piece of hardened steel, pointed at both ends. A small brass or jewel cup is secured at its center and the whole is supported on a needle point so that it may be free to swing under the influence of the earth's magnetic pole with as little friction as possible. The needle is made magnetic by being rubbed against a lodestone or magnet.

If the magnet is an iron bar, it will retain magnetism only so long as the lodestone is in contact with it, but a bar of steel will retain the magnetism it has acquired from the lodestone or another magnet; for this reason it is called a permanent magnet. Such magnets are usually bent into the shape of a horseshoe, and when so formed are called "horseshoe magnets." A "keeper" or armature, which is a piece of soft iron, is kept in contact with both poles of the magnet so as to conserve the magnetism in the steel horseshoe. At any event, such is the usually accepted *raison d'être* of the armature.

Remembering that one end of the magnetic or compass needle always points north and the other south, it will be easier to understand the law which says that like poles repel each other and unlike poles are attracted the one to the other. This is demonstrated very simply by suspending a bar magnet from a string and noting which end swings to the north; then with a bit of paint, color this end red. Proceed the same way with a second magnet, making sure that the first magnet or any steel tools, etc., are removed a considerable distance. Instead of a second bar a compass can be used. If two bars are employed, the one is allowed to remain suspended from the string and the other one is brought toward it in such a manner as to first present the red colored ends near each other, when they will be repelled. These extremities are called north-seeking ends and are usually marked + or N, though this is not uniform and in consequence considerable confusion ensues. Technically, the end of a needle or bar that seeks a north position is not a N (north) pole, but a S (south) pole, because, since dissimilar poles attract each other, the real north geographical or magnetic pole of the earth attracts the south pole of the needle or bar magnet. Popularly, the north-seeking end has come to be called a "north pole" and a south-seeking end, a "south pole," which is just the reverse from the conditions imposed by the law of like and unlike poles.

Just what magnetism is can not be stated; it is, however, supposed to be interrelated with the vibrations of what is called the luminiferous ether. In former days it was supposed to be a fluid, but Prof. Sylvanus P. Thompson says, "In many treatises it is the fashion to speak of a magnetic fluid or fluids; it is, however, *absolutely certain that magnetism is not a fluid,* whatever else it may be. A magnet when rubbed upon a piece of steel magnetizes it *without giving up or losing any of its own magnetism.* A fluid can not possibly propagate itself indefinitely without loss."

The presence of magnetism, in extent or density, has come to be called a certain number of imaginary lines per square inch or square centimeter. We have seen that magnetism propagates itself across space and by induction causes a piece of iron or steel to also become magnetic. This may be explained by saying the magnetic lines, in number, concentrate themselves in such paths as present small resistance to their passage, so that in comparison to air, there is found to be a very large increase in the number of lines flowing when a piece of iron is interposed in the path of magnetic activity.

The lines flow out from the north pole and pass through the air to the south pole, thus completing the circuit. If the path is long and of such a nature as to present great resistance, the number of lines per square inch will be considerably smaller than if the path is short and of a permeable nature. Materials that present resistance to the passage of magnetic lines are said to possess reluctance; the reverse of this quality is called permeability. These qualities have received names that are somewhat similar to those relating to Ohm's law, the volt, ohm, ampere and watt. They are the "Gilbert," known as the unit of magnetomotive force, comparable to the volt or pressure; the "Weber," as the unit of magnetic flux, comparable to the ampere or quantity; the "Oersted,"

as the unit of magnetic reluctance, comparable to the ohm or resistance.

The names applied to these units have been selected by scientists in commemoration of celebrated physicists — the Gilbert in honor of the noted founder of magnetic research, Dr. William Gilbert, an Englishman (1540-1603), previously referred to; the Weber in honor of Wilhelm Edward Weber, a German (1804-1891), who made special experiments and researches in magnetism; and the Oersted, in honor of Hans Christian Oersted (1777-1851), a celebrated Danish physicist who discovered electromagnetism.

It should be noted that however often a bar magnet is severed, each separate piece is possessed of magnetic polarity. If a series of short bars be placed end to end, N to S, etc., the whole number will act as a single bar having concentrated force at the end and none at the center.

All of the phenomena inherent or peculiar to lodestones or bar magnets can be produced by a current of electricity; in fact, every wire that carries a current has a magnetic whorl surrounding the wire, rotating clockwise, if one assumes oneself to be looking at the end of the wire and the current is passing away from the observer. By making the current to traverse twice in the same vicinity, by placing two wires side by side, the magnetic whorl will enclose both wires and the density of the magnetism will be greater. Oersted discovered the relation between magnetism and electricity and demonstrated their interdependence, for with an electric current we can produce magnetism and with magnetism produce an electric current.

If a coil is made of annunciator or bell wire, about four inches diameter inside, and about forty or fifty turns of the wire are taken and the ends connected to an indicating device, such as a low-resistance galvanometer, the device will show the presence of a current of electricity when a horseshoe magnet is quickly moved so that the coil of wire will pass between the two poles of the magnet. The moving of the magnetic lines of the magnet *across* the wire causes the production of an electric current. When the horseshoe is moved downward, the current induced in the wire flows one way, and when the magnet is raised the momentary current moves in the reverse direction.

There must be movement of the lines; whether the magnet moves, or the coil of wire moves, or the strength of the magnetism be changed is immaterial, so long as there is a *change*. This principle is employed in the construction of dynamos for the generation of electric currents by means of engines, etc. When a wire is coiled around an iron core, much like thread is wound on a spool, the core will become a magnet when a current of electricity traverses the wire, but will lose its magnetism when the flow of current is interrupted. This is called an electromagnet, because it is produced by electricity. The action is not instantaneous, however, because it takes an appreciable time for the magnetism to come to its full strength, and when the current is stopped the magnet will not instantly lose all its magnetism, but some moments will elapse. This peculiarity is called magnetic lag, because the magnetic effect lags behind the inducing cause. For ordinary coarse results, this does not have very much bearing, but when very delicate apparatus is dealt with, it becomes a serious matter and the quality of iron used for the cores of magnets requires careful selection. Door bells, telegraph instruments, motors, dynamos, etc., all come under these laws; in short, all devices using magnetism and electricity are included thereunder.

(To be continued.)

THE FALL OF JENKINS.

William Allen White, the Kansas editor, in telling of the troubles of a city editor in drilling green reporters, was reminded of an amusing case that came within his own observation.

"There is one thing you must remember above everything else," said the city editor of a St. Louis paper to a new reporter, "and that is: tell in the first few lines what your story is about — in other words, give the substance at once. Then follow with a recital of the facts, and conclude with interviews with the people concerned. That is the only orderly way of writing your story."

The new man gave close attention to this lesson, the result of which was that he handed in that night a news item reading as follows:

"Rufus Jenkins, a carpenter, slipped and fell in Vine street yesterday and sprained his ankle badly.

"Mr. Jenkins was walking along Vine street when suddenly his feet slipped from under him and he fell, spraining one of his ankles.

"When seen by a reporter, he said: 'I was walking along Vine street, when in some way my feet slipped from under me, and I fell heavily to the sidewalk, spraining one of my ankles.'

"Mr. Frank Fuller said: 'I was walking behind Mr. Jenkins on Vine street when I saw him slip and fall to the sidewalk. When I assisted him to rise he told me that he had sprained one of his ankles."

"Dr. Thomas Rich, who attended Mr. Jenkins, said: 'Mr. Jenkins has a badly sprained ankle, due to a fall in Vine street. He will be laid up for some time.'

"Mr. Jenkins could not attend last night's meeting of the Carpenters' Union. The president, in convening the meeting, expressed regret that Mr. Jenkins could not attend, as he had slipped and fallen in Vine street, spraining one of his ankles." — *Harper's Weekly.*

A LUXURY AND A NECESSITY COMBINED.

Few necessities are luxuries and fewer luxuries are necessities, but THE INLAND PRINTER is the happy combination of a positive luxury and an absolute necessity.— *Joseph C. White, Brooklyn, New York.*



Plate by The Inland-Walton Engraving Company.

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VIEW FROM TOPTON, N. C.

(Entered at the Chicago Postoffice as second-class matter.)

A. H. McQUILKIN, EDITOR.

Editorial Contributors — ARTHUR K. TAYLOR, F. W. THOMAS, EDWIN B. DEWEY, W. B. PRESCOTT, R. C. MALLETTE.

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One year, $3.00; six months, $1.50, payable always in advance. Sample copies, 30 cents; none free.

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In order to protect the interests of purchasers, advertisers of novelties, advertising devices, and all cash-with-order goods, are required to satisfy the management of this journal of their intention to honestly fulfil the offers in their advertisements, and to that end samples of the thing or things advertised must accompany the application for advertising space.

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Patrons will confer a favor by sending us the names of responsible newsdealers who do not keep it on sale.

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W. H. BEERS, 170 Edmund street, Birmingham, England.
W. C. HORNE & SONS (Limited), 5 Torrens street, City Road, London, E. C., England.
JOHN HADDON & Co., Bouverie House, Salisbury square, Fleet street, London, E. C., England.
RAITHBY, LAWRENCE & Co. (Limited), Queen street, Leicester, England.
RAITHBY, LAWRENCE & Co. (Limited), 1 Imperial buildings, Ludgate Circus, London, E. C., England.
PENROSE & Co., 109 Farringdon Road, London, E. C., England.
M. P. McCOY, Phoenix place, Mount Pleasant, London, W. C., England.
WM. DAWSON & SONS, Cannon House, Breams buildings, London, E. C., England.
ALEX. COWAN & SONS (Limited), General Agents, Melbourne, Sydney and Adelaide, Australia.
COWAN & Co., Wellington, New Zealand.
F. T. WIMBLE & Co., 87 Clarence street, Sydney, N. S. W.
G. HEDELER, Nürnbergerstrasse 18, Leipsic, Germany.
H. CALMELS, 150 Boulevard du Montparnasse, Paris, France.
JOHN DICKINSON & Co. (Limited), Capetown and Johannesburg, South Africa.
A. OUDSHOORN, 179 rue de Paris, Charenton, France.
JEAN VAN OVERSTRAETEN, 8 rue Joseph Stevens, Bruxelles, Belgium.

EDITORIAL NOTES.

THOSE printing-office employees who have accepted small favors from the purveyors of supplies must realize how small and mean a figure they cut when they ponder on how the "respectable" railroad officials worked a similar graft. Let the printorial end swear off — they can never be more than amateurs, and green novices at that.

THE circular writers of the Typographical Union and the United Typothetæ probably marvel at their restraint and mildness of expression when they compare their controversial epithets with those that passed current at Washington. As Dr. Watts said, "Let dogs delight to bark and bite," etc., for our dish was quite strong enough to suit plebeian palates.

Now that the Paper Trust has abandoned the field, or promised to be good, à la juvenile court proceedings, will the price of its product tumble? And if it falls, will it stay down? It is well to remember that in the crusade against trusts it has not been proved that all such combinations are extortionate, and it is yet to be demonstrated that their elimination will result in a permanent lowering of prices.

THE demand for hygienic workrooms is not a passing fad; it is the development of a germ of business sense. The workers are helped to good health, and employers are the chief pecuniary beneficiaries of employees sound in body and clear of mind. Every one recognizes the unprofitableness of employing a sick man, but some apparently do not realize the loss that lurks in the prevalence of shop conditions which render an entire force "half-sick." The lazy bug is the legitimate offspring of bad air and filthy surroundings.

AMONG the many effects of the eight-hour strike will be a plethora of workers in the union jurisdiction. The so-called country printer had almost ceased to trouble his urban fellows, while high rents, machines, the effectiveness of union regulations and other considerations had about relegated the "boy" question. The labor market was nearing the conditions which pleased Mr. Journeyman when the strike occurred, and an army of new faces came to town — most of them to stay. Until this force is absorbed by the natural expansion of trade, the out-of-works — union or non-union — will have hard sledding, irrespective of what turn the fortunes of war may take. Latterly, there has been general inquiry as to why there was such a dearth of compositors, as compared with the number awaiting employment a

decade or so ago. Changed conditions and "good times" were among the chief reasons assigned, with emphasis on the prosperity note. During the same period, the craft had not been harrassed by many strikes or lockouts, and consequently there was not the infusion of new blood in the printing centers which had been customary, when there was always a "town on strike," or preparations being made for a strike. Steadiness of employment by the partial elimination of the downcast, shuffling work-seeker is one of the benefits that flow from industrial peace. Let those who hold that "striking pays" take this factor into consideration when they are doing the sum which brings them that comfortable answer.

THE feasibility of removing their offices to the country has been engaging the attention of London (England) printers. The "ruralites" speak glowingly of the benefits of well-lighted and roomy offices, of cheap labor housed in artistic cottages, surrounded by well-kept gardens, rather than in dank rooms on mean streets. But the consensus of opinion seems to be that expert workmen in the graphic arts are dyed-in-the-wool urbanites, who can not be weaned away from the delights of the city. And then, too, employers are afraid of getting too far away from base — the office of the man who gives out the work. This is one of the questions which each concern will have to settle for itself, as no general rule can be applied. An occasional firm may find it profitable to give its workshop a setting of green fields, but the printing trades will continue to flourish in the large cities. Where civilization finds its highest development and commercialism is making its best records, the printer is most needed, and there he'll be found, no matter how much he may pine for the sylvanesque.

THAT the printing trade in all its branches is one of the great industries of the country seems to be overlooked by Uncle Sam's baby department — that of Labor and Commerce. The current bulletin of the Labor Bureau devotes much space to the "Course of Wholesale Prices, 1890-1905," and though about two hundred and fifty commodities are mentioned, the raw material of the printer is not among them. There has been a great increment in prices of printers' supplies, and while the average man does not feel the burden as keenly as in the case of the product of other industries, yet the public pays the freight in one way or another. And it perhaps pays just as much for printing as it does for drugs and chemicals, or shingles, which are included in the compilation. Apart from any question of popular concern, the graphic arts are the bread-and-butter supply for a sufficient number of persons — capitalists and workers — to justify the Government statistician keeping a sharp eye on affairs of interest to them. Every one knows in a general way that prices have soared, but we venture that what the bulletin calls a "graphic table," showing the fluctuation of prices in the past fifteen years, would astonish the majority of our readers, and incidentally furnish an explanation of some things.

REGULATING THE APPRENTICE.

AT ALMOST every considerable gathering of industrialists and in technical publications we are treated to oceans of talk about apprentices. Employers who are denounced by the unions as avaricious exploiters, responsible for the decadence of the apprenticeship system, reply that unionism has been and is the cruel step-parent which stands in the way of apprenticeship progress. Some aver that the material out of which journeymen are made is not up to old-time standards, while others are just as sure that changes within the shops are responsible for the unsatisfactory state of affairs. All are agreed that something should be done and with like unanimity nobody does anything. But it is impossible, with such general recognition of an evil and the necessity for a remedy, that we shall continue to mark time. Once a move is made in the right direction and an inkling is received of what can be done, we shall step forward with celerity toward an improved condition.

A few employers and a few union officials in an Eastern city have decided to break the ice and take a timid step in advance. There has been no formal presentation of the matter as yet, but in order to open up the question for debate, the union officials tentatively propose a working agreement on these lines:

(1) When a boy is accepted as an apprentice, the union shall be notified for the purpose of making a record of the case.

(2) No apprentice shall be employed without the written consent of his previous employer and the president of the union.

(3) There shall be a board of examiners consisting of two journeymen from the office in which the apprentice is employed, two employers and an officer of the union.

(4) The board at the conclusion of each year shall examine an apprentice as to the progress made in learning the art, and if satisfactory, the employer shall grant the agreed increase in wages.

(5) If for any reason an apprentice fails to meet the requirements of the examining board, he may be "set back" for three months and then be reëxamined.

(6) If the employer is remiss in his duty toward the apprentice, and by reason thereof the

latter is unable to pass an examination, the board may order that the apprentice be given the usual increase of wages.

(7) The examination at the expiration of the fourth year shall determine the youth's fitness to be classed as a journeyman, though the employer will be under no obligation to retain him.

In the rough draft before us it is provided that the examiners shall serve without compensation, and the union specifically disavows any desire or intention to meddle with the wages of apprentices — that matter to be determined by the custom of the office or agreement between the employer and the apprentice. It also provided that every boy shall be informed as to the proposed agreement, so that he may know "what is expected of him."

From the standpoint of the boy, much will depend upon the personnel of the examining board and the character of the examination, and an instant criticism may be that the plan is deficient — that there is no intimation as to what will be demanded of the apprentice in the way of workmanship. Others, again, will contend that the board should have greater permanency and such width of jurisdiction that all apprentices could be examined by it, hearing witnesses from the office as to the boy's fitness. The desirableness of all that, and more, may be conceded, and yet the promoters of this plan are wise in not undertaking too much. They are venturing in an unexplored country, as it were, and it is best to allow experience to dictate the route to be followed, rather than to attempt to map out a line of march at the outset. Participation in the work will afford a better idea of what an examination should consist of, than the most brilliant flashes of speculation. Though the proposition before us is modest enough, yet it deals with a rather large problem, and the plan must develop and grow, for it can not be made to order, even for one community. So the safest and best thing is to allow the details to settle themselves, for which the flexibility of the plan is admirably adapted.

Among the decided merits we see at a glance is that the apprentice is elevated to a position of dignity and concern, and the plan imposes on him duties and obligations which will bear fruit in the making of the man. He can no longer hop from office to office, but there is a court to which he can appeal — and to which it is to his interest to appeal — if he is not "getting a fair show." There are no penalties provided, which is well. Much of the neglect of apprentices is due to ignorance and forgetfulness, and if in the opinion of the board a boy has been overlooked, there are few employers who would not willingly remedy the wrong once they were convinced of its existence. After all, perhaps we are very much in the dark as to the needs of apprentices, and with such boards in existence there would be an illumination of some dark places as a result of persistent systematic study of the question.

The mass of knowledge that would accumulate would soon have its effect on craft legislation, which would be colored by some regard for the interests of the apprentice and not wholly born of a desire to limit the number of boys or make their exploitation easier and more profitable, as the case may be.

The purpose of the plan is so estimable in intention — is so absolutely a move in the right direction — and is so simple and feasible in its method of operation that we wish its promoters godspeed. If it is adopted by any large city, its operation will be watched with interest.

W. B. P.

A REMARKABLE METAL.

DR. WERNER VON BOLTON at the time his tantalum lamp was shown in Berlin, in an introductory address before the Electro-Technical Association, spoke of the steps he was obliged to pursue to produce the metal tantalite which forms the filaments of the new lamps.

This metal, very curiously, has extraordinary hardness, so much so that a diamond drill working continuously for three days and nights at five thousand revolutions per minute made a barely perceptible effect on the sheet of tantalite which was subjected to the test. The metal resists chemicals and also possesses great elasticity. It has been suggested that pens could be made from the new metal instead of from the now used steel or gold.

It will be a day of rejoicing when the knives of paper-cutters, trimmers, etc., need not be periodically reground, as at present; when all sorts of edged tools will be made of a material so inherently hard as to prolong their life.

The tools used on engraving machines of all kinds, in wood engraving, banknote or lithographic work, will be lasting, and in many cases greater delicacy can be secured because of the preservation of the very sharp point that is required in mechanical engraving. This can be better appreciated when it is known that in many engravings the shallowest grooves are not more than 12 to 13 ten-thousandths of an inch deep. If now an engraving tool wears off this minute amount, the details in the shadows will be lost. This amount is about one-half of the proverbial "thickness of a hair" that many are wont to use when they desire to convey the idea of great delicacy or precision.

The absence of continual resharpening of gravers of all kinds will be an important item. Engraving tools for use on automatic engraving

machines have been made out of diamond and sapphire, but though they serve their purpose well, yet they are too expensive and liable to accidental fracture.

Tantalite, on the other hand, while exceedingly hard, has a high modulus of elasticity, so that a fine-pointed engraving tool would, with ordinary care, be practically indestructible.

Wood engravers, lithographers, steel engravers, etc., will welcome a metal that promises so much and which comes with such good credentials. The firm of Siemens & Halske bears a world-wide reputation and the trade in general is to be congratulated that the practical introduction of so important an article is freed from the usual spectacular phases of even quasi-boom promotions.

WHY BOYS WON'T LEARN TRADES.

OUR esteemed contemporary, *Newspaperdom*, deplores the lack of printers and wants to know why more boys do not learn the trade. In another issue, our friend advises the editors of great papers to get down among the people — in the currents of life — if they would know what to write about. If this admonition had been heeded, and the editor of *Newspaperdom* mingled with working-class people, he would have discovered that they know and feel the mechanic or artisan has lost caste in the community. The boy with ambitions is not going to learn a trade when he sees an ex-saloon-keeping ward boss or shyster lawyer spoken of as "elevating" himself from the low estate of a printer's case. Franklin and Greeley were proud to be printers; now their inferiors who occupy a small space in the public eye are proud they have ceased to be printers, and can hardly conceal the sneer that is within them for those who remain such. If a boy has push and ambition, why should he put in years in a printing-office? The successful printers, the ornaments of the craft — statesmen, professional men and employers — tell him plainly the way to success as they spell it lies not inside a printing-office, but outside of it.

It is presumed *Newspaperdom* had in mind youths who were not ambitious, but anxious to seek a means of livelihood, and make of themselves useful citizens — boys with a higher idea of success than the popular conception, who want to be manly men all through the chapter. In truth, it is to this class a trade must look for its real exponents, for in these days the "climbers" have too many irons in the fire and "elevate" themselves too quickly to lend much luster to their calling as artisans or mechanics. But even to such modest and well-balanced youths a "trade" does not make the appeal it once did. Under the factory system, the average journeyman is no longer a coworker with and assistant to his employer — he is a mere productive unit, whose baptismal name is never known and whose identity is almost submerged in a number by which he records his goings and comings. These and similar methods are necessary for the maintenance of discipline in great establishments, and mention is made of them not to disparage, but because they in part answer *Newspaperdom's* query, such conditions not being in consonance with the spirit that pervades the twentieth century youth. He might be quite willing to resort to them, but he girds mightily at submission and has small opinion of those who bow their necks to the yoke.

Then there is the possibility of a trade being a lifetime asset. That is not the powerful magnet it once was. Machinery or a substitute — as photoengraving superseded wood engraving — may possibly leave the mechanic stranded in middle life. Another very practical problem is the possibility of an invasion of female labor with its accompanying low wages. The higher development of woman, machinery and specialization all conspire to make this a menace to the youth. In the compositors' branch, we have heard much talk of the fitness of women as operators — and some of it from *Newspaperdom*, if memory does not play a trick. If it be true that women, as has been stated, make competent operators in six months or a year, what folly to ask why boys will not become printers? Such a statement is a warning to youths to beware a woman's trade unless they be content to work for a slight advance on female wages. If this talk of women printers frightens the journeyman of to-day, we may be sure it will have a marked effect on those considering taking up the art preservative as a life work.

But youths would take all the chances of being displaced by improved methods or the competition of female labor — for that they may be called on to meet in any walk of life. It is the low esteem in which the mechanic is held which causes many to balk essaying a trade. It is freely admitted that this is the chief reason why American-born white women will not become servants, and we are told that if it were not for foreigners, there would be none to do certain kinds of laboring work. If to hold household servants and navvies in contempt makes Americans, well-fitted to do such work, suffer hardships rather than "lower" themselves, who can measure the influence of a similar attitude toward mechanics and artisans on youths qualified to acquit themselves as craftsmen? Speaking broadly, when there is a real call for men they will be forthcoming, but the most desirable youths will be encouraged to master a



Plate by The Inland-Walton Engraving Company.

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CISTERNS OF THE NANTAHALA.

trade when it is understood that success is in doing what you have to do as well as you can, and that a producer is accorded as much respect as the non-producer, who soileth not his hands nor taketh off his coat. For ourselves, we think there is a future for the printing industry, and the surety of a fairly good livelihood for all who have an aptitude for the art and who follow it sincerely and diligently. But the constant depreciation of the social worth of the mechanic and the never-ending threatenings to lower his standard of living — vain though they may be — frighten away from the arts and crafts thousands of young men specially equipped to adorn them. Recently so eminent a man as ex-Judge Taft, the Secretary of War, protested against the tendency to sneer at $1,400-a-year Government clerks as failures, because it was not only at war with the facts but inimical to the maintenance of an efficient civil service. If Mr. Taft had reason for his solemn protest, and he has been generally commended for his utterance, how much more baneful to society must be the effect of the almost universal disparagement of the mechanic? At least those who are forever scheming to lower the standard of living of mechanics should have either the wit or the decency not to ask why boys won't learn trades. W. B. P.

A NEW ELECTRIC LAMP.

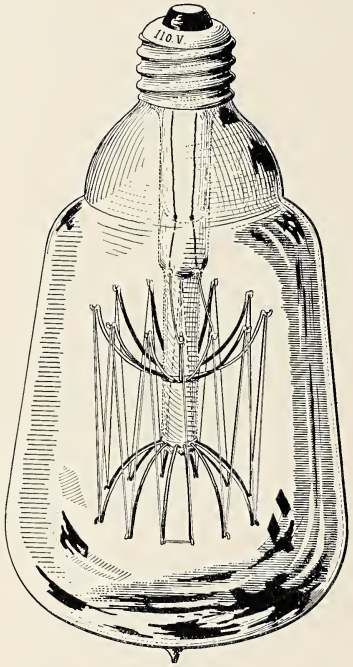
THE printer requires the best illumination attainable. This is especially true in the pressroom when three-color jobs are being run, so that the right amount of color and the very close registration which are required may be secured with the greatest ease and exactness.

Anything that will produce better and more economical results in the distribution of illumination is to the interest of the trade in general and the craftsman in particular. Siemens & Halske recently exhibited before the Electro-Technical Association of Berlin their new tantalite lamp, which in form is not very dissimilar to the ordinary incandescent lamp, though much more efficient in operation, both as to life and economy in the use of current.

This lamp is rapidly coming to the front and will ere long be a successful competitor of the carbon type which is now so universally known. The metal tantalite is used for the filament instead of carbon. This metal is now readily obtainable in sufficient quantities to assure the manufacture of the new form of lamp at a relatively low cost. Unlike the Nernst lamp or the Cooper-Hewitt vacuum tube lamp, the "Tantalum" lamp, as it has been christened, starts into action as soon as the ordinary switch is turned on, without any waiting whatever.

The filament is very strong and possesses a high degree of elasticity, even though very hard. Should the filament break for any reason, the lamp does not become useless, for as soon as the two broken ends are brought into touch and current is on, they will be welded together again, making practically a new lamp.

From the illustration it will be seen that the filament is very much longer than the carbon form; this is due to the metal tantalite having less resistance than carbon. The wire is stretched over an insulated frame. The metal does not possess any of the characteristic brittleness of carbon, for it is bent over its supports while cold.



THE TANTALUM LAMP.

There is considerable contraction in the length of the filament, the older it becomes, that is to say, the more it is used. The lamp is less liable to breakage in transport because the filament is placed on the insulating support rather loosely, when new, to allow for the lengthwise contraction spoken of.

Because of its being so very strong mechanically, the lamp can be used equally well in any position. The illumination is of a whiter cast than that from a carbon lamp.

The increase of efficiency, no doubt, lies in the great structural tenacity of the filament, which

permits a very large increase in incandescence, hence a whiter light and less watts per candle-power. An ordinary 16-candle-power lamp will require about 55 to 60 watts, and a high efficiency carbon lamp may drop to 50 watts, with a shorter life. In the former case, the watts per candle-power become 3.44 or 3.75 and in the latter 3.12.

The resistances, volts, watts, amperes, etc., are given in the table:

Type of Lamp.	Nominal Candle-power.	Volts or E. M. F.	Ohms or R.	Amperes or C.	Watts or P.	Watts per Candle.	Average life. Hours.
Ordinary incandescent	16	110	202	.545	60	3.75	1,500
Ordinary incandescent	16	110	220	.500	55	3.44	1,000
High efficiency	16	110	242	.455	50	3.12	800
Tantalum	16	110	473	233	25.6	1.6	1,000

From this table it is seen that the new lamp requires practically one-half the watts of the best carbon lamp, so that even at an increase of cost per lamp, the tantalum type will work out more economically to the consumer, without considering the higher efficiency of labor under good conditions of illumination.

The lamp should not produce so much heat as the present lamp; working at a higher efficiency, the slower, heat-producing reddish rays are absent and with them must disappear considerable heat.

N. S. A.

THE UNIVERSALITY OF THE GRAPHIC ARTS.

VERY few persons, ordinarily, consider the scope of the printing craft and its allied collaborator, the engraver. If one but stops to take account of the activities of modern life, he will be astounded to note that the mantle of Franklin has overshadowed all the various ramifications of business and social intercourse.

The craftsmen who are the exponents of the graphic arts cult make their energies and their resourcefulness permeate every nook and corner of the world. The causualist will say this is overdrawn. Suppose for the period of one month or even one week the inception of Gutenberg or Durer, the inspiration of Daguerre and his apostles, were at once removed from their accustomed niches, and all the products of their genius that the past has accumulated destroyed — the printed page obliterated and its replacement made impossible. Would not this be chaos indeed?

The way one comes the more to appreciate an advantage is to be suddenly deprived of it. We become so cynically matter-of-fact that our finer sensibilities are dulled and our ability to differentiate between the form of a thing and its substance is so warped that we are wont to hitch the horse behind the cart and delude ourselves with all sorts of sophistry; ever following superficiality and avoiding a too close association with anything approaching an analytical temperament.

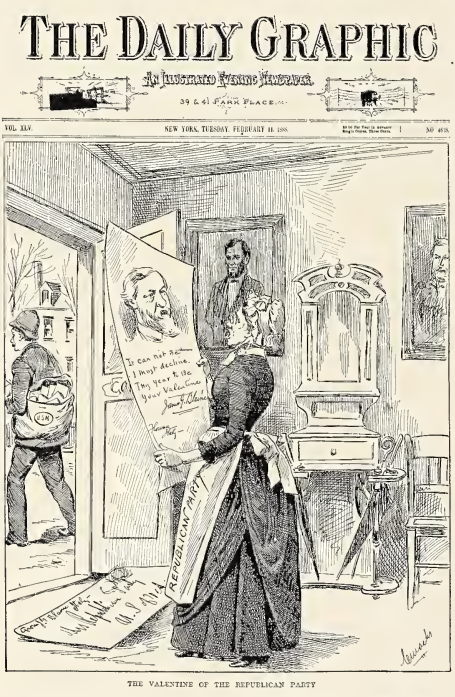
All this is why we take, as a matter of fact, the existence of so glorious a craft and relegate its apostles to the region of the Styx as compatriots of the ubiquitous printer's "devil," who in popular fancy is ensconced in some weird or mysterious manner as "master of ceremonies," whose appanages we make into a fetish of unconcern and wend our several ways, swathed in the bands of self-complacency and self-sufficiency, to the dirge of thousands of unrecognized abilities and aspirations that have and are continuing to make the graphic arts craft an immortalization of the most noble idealism of the human mind. N. S. A.

THE PICTORIAL AGE.

THE present may well be designated "the pictorial age." It is a large leap from Egyptian hieroglyphics to latter-day perfecting presses, but as good as the average present-day illustrations are, some of them would require a second Rosetta stone to disclose the key that would lead to their deciphering. Be this as it may, we are in the throes of illustration. The *Paradise of the Pacific*, published at Honolulu, Hawaii, speaking of "The Picture Age," says: "The descriptive wording is but the echo of the expression in the picture. Among printers and publishers as well as their patrons this may rightfully be termed the Picture Age, for never before have such excellent results in the way of pictorial illustration been achieved in the art of printing; nor indeed has there been seen such a profusion of pictorial embellishments on the pages of books, magazines, newspapers, pamphlets and advertising circulars as at present. Pictures greet the eye of the reader in almost every publication. Lithographs as beautiful as the fine expensive chromos of thirty years ago are now seen adorning the pages of twenty-five-cent magazines. The half-tone that the printer began using only fifteen years ago is as common as type and when manipulated by the thorough craftsman on his printing machine is rendered even more truthful than the photograph itself. Three-color work under the skill of correct registering and the nice adaptation of colors makes nature almost live in the page. The great advertisers of the world, who make princely appropriations each year to spread their trade announcements, avail themselves of the best art productions to make their commercial literature attractive to the eye, their theory being that the picture should tell as much of the merit of their wares as possible. Authors of the new books are getting very particular about the class of illustrations their publishers employ. With the weekly illustrated papers the race for half-tone supremacy

is very keen, as the publishers of these periodicals are well aware that their very life depends on their pictorial, not their editorial, department. This was even true when wood engraving was used. The monthly magazine publishers eagerly grasp every new device that tends to enhance the vividness of the scenes that go with their stories. They know that an article of history, fiction or present-day real life unaccompanied by pictorial features fails to reach the reading public as it should.

"The *Daily Graphic*, of New York, was the wonder of the age a generation and a half ago. Events happening in the morning were crudely portrayed in the afternoon by photographic process and patrons of the paper marveled that the publishers could sell their paper for five cents a copy. The venture was a failure financially, but it proved to be the germ of the perfect half-tone fifteen years after. To-day the dailies in all large cities have half-tone plants that bring out life-like scenes on ordinary paper in an incredibly short space of time. There is practically no change in the price of daily papers since the period prior to the advent of the half-tone, yet the public demand the views of the important events happening the previous day, or, in the case of the evening paper, the same day. Portraits of people connected with such events are also required. Costly art plants with special employees must be installed by every daily that wants to gratify the public and keep along with the procession.



THE VALENTINE OF THE REPUBLICAN PARTY

FRONT PAGE OF THE FIRST ILLUSTRATED DAILY NEWSPAPER IN THE WORLD.

"The readers of most illustrated periodicals give their attention to the pictures before they glance at the text. Articles devoid of faces or other views are often passed by till some later time of leisure permits of their perusal, but the cable or telegraph dispatch, the murder, robbery, fire, accident, or even the joke animated by a picture is read to the finish at once. The advertisement embellished by any sort of a new cut is sure to attract notice.

"The expert cartoonist or the artist who can render speaking half-tones in daily print is greater than he who thunders in the editorial columns — that is, in the eyes of the business manager and possibly a large percentage of the public. Artists are worth as much as writers in the magazines, for this is the Picture Age and pictures are what popularize most periodicals."

To modify the assertion of crudeness charged against the New York *Daily Graphic* we reproduce a first page of that publication, of February 14, 1888, which, because it was the pioneer illustrated daily journal of the world, is of historic interest. One must take exception when the results of eighteen years ago are called crude, and the specimen page shown is its own defense.

UNDERPAID FOREIGN POSTAGE.

THE public prints have recently sounded a warning to American correspondents to exercise more care in affixing the proper amount of postage to mail matter intended for points abroad. American residents, especially in Germany, and business houses, as well, have found it necessary to make formal complaint to the American consuls anent the great influx of underpaid mail matter. German postoffice officials take a special delight in weighing up American mail so as to add a considerable amount to the postoffice revenues and impose a hardship on the unlucky recipient of the offending mail. The officials, of course, are within their prerogatives and can not be blamed for living up to the requirements of the International Postal Union.

Americans who hurriedly and carelessly send away foreign mail, letters with 2-cent stamps that should have 5 cents affixed, or an overweight letter, with only a 5-cent stamp, that should have 10 cents attached, subject their friends and their business correspondents to needless annoyance, and if they but realized that the persons receiving such

mail not only had to pay the deficient postage, but a *fine* in addition, equal to *double* the amount of the shortage, it is thought they would use the necessary care in dispatching their letters. It is not alone Germany that is able to considerably increase postal revenues, but other countries also levy tribute as a penalty for the same kinds of carelessness.

To one who has lived on both sides of the water, the condition is not wholly to the disadvantage of the "Yankees," but our foreign cousins also err sometimes in the same way, but after one has repeatedly received underpaid mail while abroad from American friends, one wonders where the joke comes in.

If the postoffice officials of the sending country refused to forward underpaid mail, the troubles mentioned would soon disappear; besides, a considerable increase of revenue would be secured, which is now lost to the receiving country, which *doubles up* the amount.

The stamping of all such mail with "held for postage," in connection with a ruling that makes obligatory the placing of the name, or at least the address, of the sender on the envelope, would enable the officials to forward a notification card informing the sender of the deficient postage. One or two experiences would effectually cure the careless one.

THE INLAND PRINTER HELPED HIM.

Last year I was working in a shop which had a Linotype, and by the sudden resignation of the operator, the proprietor was left with no one to run the machine. I took hold of it with no previous knowledge of the same and ran it steadily for six months with a total expense for repairs of 10 cents, one of the spring pawls in the entrance to the first elevator wearing out and having to be replaced. The only help or instructor I had was the back numbers of THE INLAND PRINTER and the new ones I received each month.— *LeRoy Boggs, Mitchell, South Dakota.*



Plate by The Inland-Walton Engraving Company. Grand Trunk Railway System.

THE FISH THAT DID NOT GET AWAY.

White's Lake, Algonquin National Park of Ontario.

MADE A HIT WITH HIM.

I am in receipt of the sample copy of THE INLAND PRINTER, which you sent me and am greatly pleased with it. I think possibly that, being a last year's copy you do not intend to charge for it, but I consider it as being worth far more than the price named on the cover (30 cents) therefore I enclose exchange order for that amount, also $1.50 for six months' subscription.— *N. G. Abbott, Lodi, Wisconsin.*

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. V.— BY N. S. AMSTUTZ.*

AT the risk of reiteration, it should be stated that it is important for every engraver, printer and user of half-tones to understand the fineness of the various steps, as well as the results of the art; this will tend to raise the standard among process-workers and bring the craft to the point of technical efficiency that has been the ideal of its most ardent followers. The process, while dealing with minuteness on every hand, yet possesses some inherent shortcomings which the workers and operators are constantly striving to overcome.

Between brushing, rolling-up, powdering, staging, fine etching, etc., and the retouching of negatives, which has recently come into vogue in Europe, the personal equation entering into the production of half-tones is a large one indeed. This of itself is no handicap, for it is obvious that inanimate materials can not of themselves arrange their interrelations and coördinate causes and effects, so "the man behind the gun" perforce is the greatest source of activity. Since the personal element is so essential, is it not the part of wisdom and the exercise of the highest business acumen for the proprietor to place in the hands of the photographer and etcher, and the printer as well, such means as shall enable them to quickly determine the best course to pursue under the exigencies of any specific problem?

It has been shown in the course of these articles that the minutiæ of the production and printing of half-tones is such as to place the profession on the same plane with the skilled worker in precision engineering; this being so, it is important to consider what the results would be of a mechanic's efforts in the construction of a delicate device, without having recourse to some means (at least as delicate as the work in hand) by which to *measure* the parts of the mechanism under construction; yet the process photographer, the etcher and the printer are expected to do uniform work under all sorts of conditions without the use of any means of measurement at all adequate to the precision of the work in hand.

Certain workers will have their own ideas as to the necessary size of dots on the negative or the plate being etched, for different tone values, which ideas will be different from those of other workers; yet both sets of operators will have the same aim of proficiency before them. How can any one *control*, within definite ranges, whatever he is producing, without noting or recognizing the interrelated dimensional values of the different sections of his work? The art of half-toning is not old yet and in consequence has not become loaded with traditions, and by reason of this immunity, is free to adopt the most advanced results of research in this interesting field.

TABLE L.—Showing the **characteristics** of Fig. 25, at **110 lines**, special **banded test etchings** from "O" time to 40 minutes in the acid under flat etches.

KINDS OF DATA.	ETCHING TIME OF BANDS.					
	1¼ min. O dots.	2½ min. O dots.	5 min. O dots.	10 min. O dots.	20 min. O dots.	40 min. O dots.
Diameters	.0031″	.0032″	.0038″	.0047″	.0060″	.0079″
Areas	75.48	80.43	113.41	173.49	282.74	490.17
Per cent white	9.1	9.7	13.7	20.9	34.1	59.4
Per cent black	90.9	90.3	86.3	79.1	65.9	40.6
Measured depths	.00084″	.0012″	.0015″	.0020″	.0026″	.0032″

Unit area = 828. Pitch = .0091″. Diagonal pitch = .01287″. "Enamel" dot diameter = .00277″.

One operator will examine his work and tell you that the white dots of a certain tone are about one-fourth or one-third or one-half of the screen mesh. Another, who can not look at the work with the same eyes, may in all candor say the tone values mentioned to his eyes appear to be one-third, one-half, or three-quarters of the screen pitch. This is all due to there being no standard basis of comparison or measurement in vogue. If the person who makes the negative also made the etching there would not be such an urgent demand for some *uniform* system of comparison, but as these two phases of the work are, beneficially, in separate hands, it is of the utmost importance that the operators and etchers be supplied with some moderate-priced microscope which has a staging that can be placed over any part of the work that is under examination and which has a screen in its focal plane that will enable direct measurement of diameters or widths of dots, etc., to be made, and such dimension identified in terms of a known unit, as a thousandth of an inch or hundredth of a millimeter. By using such an instrument the operator and etcher, in collaboration with each other, knowing that an "enamel" dot

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.

of a certain *definite* diameter is the one best to use, can make the negative accordingly so as to enable the etcher to hold a given finished size of dot which will have the best tonal interpretation, also making allowance for the remaining interventions between the engraving and the printed page.

A feature of the usual half-tone inspection that is not generally understood is the misinformation which is acquired through the use of a low-power magnifying glass. Unless a magnification of at least twenty diameters is used, the form of the gations is to place within the hands of graphic arts craftsmen data that shall enable them to get greater certainty and uniformity in their work, that will not tear down precedent or experience, but shall fortify the same. It is important, at this point, to controvert a semi-popular impression that the "average man" does not care for information of a technical order which bears on his profession. The purpose of self-improvement is present and the aspiration to be second to none holds good even in these days of great strenuosity, so that the oft-

TABLE M.—Showing the **characteristics** of Fig. 26, at **110 lines**, special **banded test etchings** from 40 minutes to 40 + 25 minutes in the acid under flat etches.

KINDS OF DATA.	ETCHING TIME OF BANDS.								
	40 min. ○ dots.	40 + $\frac{5}{16}$ min. ○ dots.	40 + $\frac{8}{16}$ min. ○ dots.	40 + 1½ min ○ dots.	40 + 2½ min. ○ dots,	40 + 5 min. ○ dots.	40 + *10 min. Crescent dots.	40 + *20 min. Square dots.	40 + *25 min. ● dots.
Diameters	.0079″	.0080″	.0082″	.0084″	.0087″	.0092″	.0035″a	.0015″	.0013″
Areas	490.17	502.67	528.10	554.18	594.47	664.76	122.5	22.5	13.27
Per cent white	59.4	60.8	63.9	67.0	71.9	80.3	85.2	97.3	98.4
Per cent black	40.6	39.2	36.1	33.0	28.1	19.7	14.8	2.7	1.6
Measured depth	0032″	0033″	.0035″	.0040″	.0044″	.0045″	.0046″	.0047″	.0048″

* = black dots of "whites." a = equivalent square dot.

Unit area = 828. Pitch = .091″. Diagonal pitch = .01287″ "Enamel" dot diameter = .00277″.

dots, especially the round ones, will not be truly apparent, as round dots in the grays will seem to be square. This is quite misleading and places the etcher at a disadvantage. Such a microscope can be used under an incandescent lamp, bright daylight or any suitable source of illumination, and the eyepiece brought into focus by the right hand, while the staging is held by the left hand heard cry, "they will not hear," is more of a reflection of the state of mind of the one who queries than of the usually receptive mind of the busy worker.

Again, it is said the matter is too deep and reaches beyond the comprehension of the reader. It must be confessed that the novice would have some difficulty in following the various phases of

TABLE N.—Showing the **calculated changes in areas** of printing dots from the "**three-quarter**" white region **to pure white** at **100 lines** per inch.

No.	White dot diameters.	Crescent dot areas.	Per cent of white.	DIMENSIONS.		Round dot diameters equivalent to crescent dot areas.	REMARKS.
				Point to point.	Hollow to hollow.		
1	.00977″	none	75.00	none	.00436″	none	True ¾ white.
2	.01000″	214.60	78.54	.01000″	.00414″	.0057″	"Three-quarter" white.
2 a	.0102 ″	189.14	81.09	.00800″	.00394″	.0049″	.....
3	.0105 ″	155.65	84.43	.00680″	.00364″	.0045″	.....
4	.0110 ″	111.43	88.86	.00542″	.00314″	.0038″	.....
5	.0115 ″	76.44	92.36	.00432″	.00264″	.0031″	.....
6	.0120 ″	49.33	95.07	.00340″	.00214″	.0025″	.....
7	.0125 ″	28.75	97.13	.00252″	.00164″	.0019″	.....
8	.0130 ″	13.18	98.68	.00170″	.00114″	.0013″	.....
9	.0135 ″	2.38	99.76	.00092″	.00064″	.0006″	.....
10	.0140 ″	.34	99.96	.00020″	.00014″	.00006″	.....
11	.01414″	none	100.00	none	none	none	"Covering" dot.

Unit area = 1000. Pitch = .010″. Diag. pitch = .01414″.

NOTE.—The dimensions of the crescent dots given predicate, as they reduce in size, the formation of square followed by rectangular dots.

directly over such part of the subject as requires examination; whether of the negative, enamel print, etching, completed engraving, engraver's proof and press proofs, before or after making ready. These can all be analyzed and definite comparisons made.

Concisely stated, the purpose of these investi- the treatment, but the implied statement that one is "ahead of the procession" is fallacious. To particularize, there can be no procession at all unless there is a leader, and what more commendable trait in trade journalism than that which causes an organ to actually lead in all of the various ramifications of its chosen field?

REGION OF "THREE-QUARTER" WHITE.

Of all the difficult portions of the entire gamut of tonal interpretation, that located in the region of "three-quarter" white is the one which causes more concern to the process photographer and etcher than any other. The three-color worker has this evasive region to deal with to a larger extent than monochrome requirements ever impose on a wide-awake processman.

This evasiveness causes many heartaches and grievous misunderstandings, and for these reasons it should be understood by the manager, the user, and admirer of half-tone reproduction that the process has its limitations; that from the very nature of things, perfection can not be attained. By contrast, in photogravure practice, one has varying sized dots and varying thicknesses of ink, both dependent in varying degrees on the variable light action existent in the process of photography, while in half-tone work *only the size of dot* is the variable factor, which, it is submitted, has quite a load to carry.

Two banded test etchings at one hundred and ten lines per inch have been made to develop this region. Fig. 25 shows tones leading from the smallest ○ dots at a one one-fourth-minute etch, to the smallest ● dots under a forty-minute etch, each stage being double the time of a previous one. Fig. 26 shows the tone ranges over the "three-quarter" whites under short bites, starting from a forty-minute ○ dot to the smallest ● dot at twenty-five minutes in the acid. The detail etches are noted at the top of the engraving in each case. Fig. 26 and Table M disclose the critical region commencing at about the five-minute etch. The total time in the acid for each band is the value of each column added to the value of the starting band. In Fig. 25 the start is "0" and in Fig. 26 it is forty minutes.

Table N gives the calculated values of the "three-quarter" white region, equivalents of "crescent" dots from the point of second acceleration to pure white at one hundred lines per inch. The equivalent diameters given in this table refer

TABLE O.—Showing the required **dot dimensions to produce true tonal gradations** from black to "white" at **100 lines per inch.**

White (○) dots from black to "¾" white.

DATA.	Black.	1/16 white.	1/8 white.	1/4 white.	1/2 white.	True ¾ white.	**Nominal ¾ white.**
Diameters	none	.0028″	.0040″	.00565″	.0080″	.00977″	**.0100″**
Areas	none	62.5	125.	250.	500.	750.	**785.4**
Per cent white	none	6.25	12.5	25.	50.	75.	**78.5**
Per cent black	100	93.75	87.5	75.	50.	25.	**21.5**

Black (●) dots from "¾" white to "white."

DATA.	**Nominal ¾ white.**	1/16 white.	1/8 white.	1/16 white.	Pure white.
Diameters*	**.00565″**	.00488″	.0040″	.0028″	none
Areas	**214.6**	187.5	125.	62.5	none
Per cent white	**78.5**	81.25	87.5	93.75	100
Per cent black	**21.5**	18.75	12.5	6.25	none

* = equivalent of crescent dot areas.

Unit area = 1000. Pitch = .010″. Diagonal pitch = .01414″.

TABLE P.—Showing effect of **spreading action** on tonal values of **white** (○) **dots** at **100 lines per inch** and a unit area of 1000, **without overlays.**

ENGRAVING.		PRINTED PAGE.		
Dot diameter.	Per cent white.	**Decreased** dot diameter.	Per cent white.	Per cent loss of white.
.001″	.7854	lost by filling.	black.	.78
.002″	3.1416	.001″	.7854	2.36
.003″	7.068	.002″	3.1416	3.93
.004″	12.56	.003″	7.068	5.49
.005″	19.63	.004″	12.56	7.07
.006″	28.27	.005″	19.63	8.64
.007″	38.48	.006″	28.27	10.21
.008″	50.26	.007″	38.48	11.78
.009″	63.61	.008″	50.26	13.35
.010″	78.54	.009″	63.61	14.93

The decrease of diameter is taken as .001″ for each change in diameter of the engraving dots.

TABLE Q.—Showing effect of **spreading action** on tonal values of **black** (●) **dots** at **100 lines per inch** and a unit area of 1000, **without overlays.**

ENGRAVING.		PRINTED PAGE.		
Dot diameter.	Per cent white.	**Increased** dot diameter.	Per cent white.	Per cent loss of white.
.001″	99.21	.002″	96.86	2.35
.002″	96.86	.003″	92.93	3.93
.003″	92.93	.004″	87.44	5.49
.004″	87.44	.005″	80.37	7.07
.005″	80.37	.006″	71.73	8.64

The increase of diameter is taken as .001″ for each change in diameter of the engraving dots.

The dot diameters may be assumed as equivalents of equal area square or other shaped dots.

to the same areas of crescent dots that possess a similar tone value. Table N also shows the rate at which the tone values change from "three-quarter" white toward pure white. This feature is also localized by the short periods of time in the etching bath of Fig. 26 immediately following the "three-quarter" white region.

In addition to giving the characteristics of Figs. 25 and 26, in Tables L and M the micro-



Fig. 25.

Banded flat etches at 110 lines per inch. Data given in Table L, enlargements in Fig. 27.

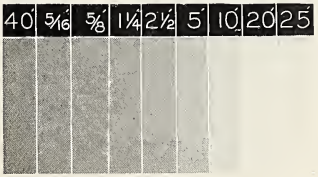


Fig. 26.

Banded flat etches "¾" white region at 110 lines per inch. Data given in Table M, enlargements in Fig. 28.

photographs of Figs. 27 and 28 are shown; these bear the same identifying numbers as Figs. 25 and 26.

Table O gives the various sizes of dots that shall interpret the true tonal values ranging from dead black to the "whites" at one hundred lines per inch.

Table N, in connection with Figs. 25 and 26, shows how important it is to exercise the greatest possible care at the critical period of the etching, because very small changes in time, from the moment the "crescent" dots are formed, will make such marked modifications in the area of the dots as to (unless overcome by special stops, staging or "short bite" etches) cause the color or tone value to be entirely lost and the result to appear "chalky" and very unsatisfactory indeed.

Between stages 2 and 3 of Table N, the change in area is 58.95; between 3 and 4, 44.22; 4 and 5, 34.99; 5 and 6, 27.11; 6 and 7, 20.58; 7 and 8, 15.57; 8 and 9, 10.80, and between 9 and 10, only 2.04. Fig. 26 predicates the start of the crescent dot with a forty-five-minute etch. It is striking to compare the five minutes from "40" to "5" with the five minutes between "5" and "10," from which it is apparent that, commencing at the "5" stage (40+5) and banding at the same rates given in Fig. 26, all the possible gradation of the crescent dots will be disclosed.

SPREADING ACTION.

In tables P and Q are given certain sizes, changing by .001 inch, of engraving dots, the increase of ● dots and decrease of ○ dots in printing, the percentage values of the modifications and their original tone relation.

It will of course be obvious that a spreading action of .001 inch bears a greater relation to a small ○ dot in its proportion to unit area, and its consequent reduction in size, than the same amount added to the diameter of a small ● dot and the proportion it bears to unit area. For illustration, suppose a ○ dot of .0026 inch diameter and an area of 53.1; this dot, when its diameter is reduced on the printed page to .0016 inch, will have an area of only 20.1, a change of about 33 in the direction of greater darkness, or loss of white. In the case of a ● dot of the same diameter .0026 inch, with an area of 53.1 an increase of .001 inch, on account of the spreading action of the ink will make the impression diameter equal to .0036 inch diameter having an area of 101.7,

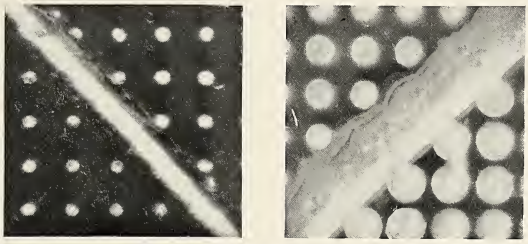


Fig. 27.

Micro-photographs by the author, of Fig. 25, enlarged about 35 diameters. The etched-out portions of Figs. 25 and 26 are filled in with magnesia powder and then photographed 1¼, 2½; 20 and 40 minutes.

which is an *increase* of black of 48.6. This shows how much more rapidly the "whites" darken under the same spreading action of the ink, and it also shows how important it is to relieve the pressure from the ● dots of the whites by means of a good make-ready of either a hand-cut or specially prepared patent overlay.

This spreading action, unless controlled by overlays, is about the same in extent away from any printing surface edge, whether around the rim of the smallest ○ dot or around the edge of the smallest ● dot; this materially modifies the

tonal value by causing the high lights or "whites" to darken faster, relatively, than the shadows, so that when a flat impression is compared with the engraving, the key of the whole is found to be considerably lowered. With an overlay formed so as to reduce the pressure per unit area directly proportional to the tone value of the ● dot areas and inversely proportional to the areas of the ○ dots, the deleterious effect of the spreading action will be compensated and the true tonal relation of the engraving will be found on the printed page. It is not enough to simply remove the pressure in the high lights and retain it up to the middle tones. This will of course show improvement and will do very much to lengthen the life of the half-tone, but it can not in the nature of things produce adequate effects on the interpretation unless there is a corresponding change in the overlay relief for every change in tone value of the engraving.

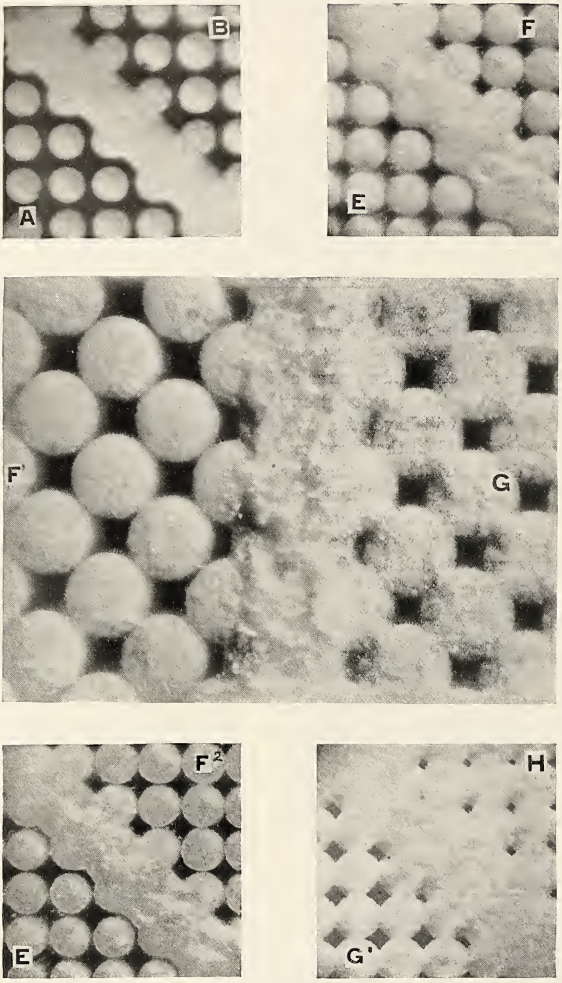


Fig. 28.

Micro-photographs by the author, of Fig. 26, showing five enlargements; four magnified about 35 diameters and one (F^1-G) enlarged about 68 diameters, at the various times in the acid listed below: A, 40; B, 40 + $\frac{1}{16}$; E, 40 + 2½; F and F^2, 40 + 5; F^1, 40 + 5; G and G^1, 40 + 10; H, 40 + 20.

From investigations made, it can be stated that the overlay thickness is directly proportional to the percentage of black and inversely proportional to the percentage of white. Suppose a maximum range of .004 inch variation in overlay thickness, the proper relief of an overlay adapted to this range and a 100-line engraving would be for the blacks .004 inch; for the quarter-whites or "shadows," .003 inch; the half-whites, middle tones, or "grays," .002 inch; the "three-quarter" whites, .0009 inch (practically .001 inch) and for the smallest ● dots of the "whites," .00025 inch. These values are found by multiplying the maximum range by an overlay constant that is directly proportional to the percentage of black. This constant applies to all lines per inch. Its value for the different tonal qualities is as follows: dead black, 1; 6¼ per cent white (○ dots of shadows), .9375; 12½ per cent white, .875; 25 per cent white, .75; 50 per cent white (○ dots of grays), .5; 75 per cent white, .25; 78½ per cent white (birth of "crescent" black dots or beginning of second acceleration), .215; 81¼ per cent white, .1875; 87½ per cent white, .125; 93¾ per cent white (near the smallest ● dots), .0625, and for 100 per cent white (routed out areas) the constant becomes "0."

The dot diameters corresponding to these tonal gradations at one hundred lines per inch are given in Table O. Whatever maximum range is selected, having regard for the class of paper, the kind of ink and the number of impressions, it is multiplied by the overlay constant which gives the thickness of overlay to use on the portion of the engraving corresponding to the tone values listed. For practical purposes an ordinary machinist's micrometer is sufficient to measure overlay thicknesses.

(To be continued.)

Written for THE INLAND PRINTER.

MERCURY VAPOR LAMPS.

BY W. D. STEPHENSON.



MONG mercury vapor lamps, the "Cooper-Hewitt," invented by Mr. Peter Cooper Hewitt, of New York, the outcome of a long study of electrical vacuum phenomena, and recognized throughout the scientific world as one of the most efficient illuminants known, has come into commercial prominence in the past year in many specialized fields of industrial lighting. Placed conservatively upon the market in 1903, the records of its performance since then have fulfilled all the original anticipations as to its reliability and economies, and the popular endorsement of the satisfactory quality of its illumination in these early installations has encouraged its further adoption in various new applications. Recent improvements in design and construction have increased its general utility, and the perfection of a new type of lamp adapted to the great majority of alternating-current lighting circuits has increased its field of usefulness.

When mercury vapor lamps were first put on the market, their interesting scientific features and the attention everywhere attracted by the novel new color and diffused light for a time overshadowed commercial recognition of their industrial value. With the reputation of the lamps as one of the cheapest forms of industrial lighting established, they are to-day being installed in many factories and workrooms, in several standard styles designed to meet specialized requirements of commercial lighting systems.

The records of the performance of the Cooper-Hewitt lamps, covering two years, have demonstrated that their life has exceeded five thousand hours in numerous instances. The New York Transportation Company recently renewed four tubes which had been operated over ten thousand hours each, and three of them were in fair operating condition when returned to the factory, but somewhat blackened from long service. As the only cost of maintenance in mercury lighting is for tube renewals — about one-third the original cost of the complete lamp — the demonstrated long life of the tube gives a new importance to the claims made as to its high efficiency.

Tubes continue to operate perfectly until the vacuum becomes impaired, with no consumption of the light-giving, mercury vapor element. Almost all other methods of artificial lighting require the heating to incandescence of some solid substance, usually carbon, with the loss of much the greater part of the energy consumed, in the generation of heat and the more or less rapid consumption of the material that is made incandescent. Even the life of the incandescent globe filament is but a comparatively small fraction of the demonstrated life of the mercury tube. In the Cooper-Hewitt lamp, a long glass vacuum tube one inch in diameter and from seventeen and one-half to forty-five inches long in the standard types, mercury vapor is excited to a high degree of incandescence by the passage of the electric current with a generation of heat that is reduced to a minimum. The radiant heat from mercury lamps, therefore, is in proportion to lighting capacity a very small part of that given off by incandescent globes or arc lamps, and this high efficiency, which means an all-important saving in current consumption, has incidentally meant also a material reduction in the temperature of workrooms in many installations in which the heat from former lighting methods had been very noticeable in hot summer weather. The operating economy is well established — a candle-power of light for a current consumption of from .55 to .64 watt, proportionately one-sixth the current required by an incandescent globe, one-third that required by an enclosed arc, and one-half that required by an open arc.

In the growth of mercury vapor lighting, considerable attention is being attracted to the peculiar merits of its illumination — the even diffusion of light from a luminous surface of great extent, which prevents the formation of sharply defined highly illuminated areas and deep contrasty shadows, the contraction of the pupil of the eye caused by concentrated points of illumination of other methods; and the freedom of the mercury spectrum from red rays, attributed physiologically as the chief cause of eye fatigue to workers under ordinary artificial illuminants.

The distortion of some color values under the mercury lamp because of the absence of red rays is a matter of no consequence in many phases of industrial lighting, where the accurate determination of natural color values is not necessary, and the advantages of a pleasant soft illumination said to be less fatiguing to the eye than any other light except the homogeneous white of the sun's rays are very important. All artificial illuminants distort color values more or less. The mercury light, its advocates assert, is the only one whose spectrum is deficient only in the undesirable rays. Mercury vapor lamps, however, produce a certain ghastly or greenish color that at first is not pleasant to one unaccustomed to their value.

Lamps of this type have been extensively adopted during the past two years in large machine shops and foundries, where the saving effected in current consumption has been very great; in business offices, in which the superior working quality

of its light has dictated its use, apart from the consideration of its economy; in the press and composing rooms of many of the largest publishing houses in America, where the disadvantages of wiring around machinery are avoided by its use and three-color printing is not extensively in vogue; in railroad repair shops and in drafting-rooms.

As showing the character of recent industrial installations, there may be mentioned the enlarged at the Washington Postoffice, where thirty lamps, requiring 105 amperes in all, are in use in the high-vaulted mailing-room, 100 by 200 feet, on the ground floor, in the place of one thousand incandescent globes requiring 500 amperes, with which the room was formerly lighted.

Most of the installations of the past year have been made with 300 and 700 candle-power direct-current lamps, but a new 425-candle-power lamp, for alternating-current circuits, recently put upon



A SHADOW PICTURE.
Photo by E. C. Rensberger, Stockton, Cal.

Newark works of the Westinghouse Electric & Manufacturing Company, where 470 lamps are in use; at the new model factory of the J. L. Mott Iron Works, at Trenton, equipped with 113 lamps. Five of the largest river piers in New York are lighted by them. All the United States Government currency and international revenue stamps are printed (in monochrome, that is, there is no interrelation of color values between different parts of the same plate) under their light in the Bureau of Engraving and Printing at Washington. Another interesting installation is the lighting of the presses and make-up tables in the new building of the New York *Times*, with forty-eight lamps. An example of office lighting is to be seen the market, is now being delivered for various installations where the advantage of mercury lamp lighting, through current conditions, has not before been practicable. The 700-candle-power lamps are generally operated in series — two in series on circuits of from 98 to 122 volts, or four in series on circuits of from 196 to 244 volts; 300-candle-power lamps are operated singly on circuits of from 98 to 122 volts, and two in series on a 196-244 voltage. Series lamps are arranged with extra shunt resistances so that either lamps of a pair in series may be operated singly if desired. Both types of the direct-curent lamps are run at 3½ amperes, 700-candle-power lamps in series on a 110-volt circuit consuming 385 watts, one 300-

candle-power lamp installed singly on a circuit of the same voltage consuming the same current, and two of these lamps in a series on a 220-volt circuit consuming 770 watts. The new type of alternating-current lamp consumes 275 watts on either 110 or 220 volt circuits, or .64 watt per candle-power.

Mercury vapor lamp outfits, in the Cooper-Hewitt form, consist of a glass vacuum tube, a holder and reflector, and an auxiliary. The tubes of direct-current lamps have a positive electrode, of iron, at one end, and a negative electrode, of metallic mercury, in a bulb at the other end. Tubes of the new alternating-current lamps have two positive electrodes, of iron, at one end, and a negative electrode, of mercury, at the other end, the alternating current entering the vacuum by the positive electrodes and leaving by the negative electrode.

The alternating-current lamps thus, in themselves, operate as a converter, through an application of the principle of negative electrode resistance discovered in the first invention of the mercury lamp. They are started as the direct-current lamps are started, by a temporary tilting to permit the flow of mercury from one end to the other in a small stream which momentarily bridges the vacuum, the resulting arcing of the current vaporizing some of the mercury, and the subsequent steady current flow increases the vaporization and the vaporized mercury is excited to a high degree of incandescence. Many 700-candle-power lamps are now made with a small solenoid or magnet on a suspension bar just above the holder, which automatically tilts the tube when the circuit is closed. These automatic lamps are used in installations in which it would be inconvenient to reach a tilting chain with the hand or a special hook.

In these lamps, the so-called auxiliary consists of two or three coils of resistance wire, an inductance coil, and usually a ballast bulb, all of which are connected in series with the tube. These are enclosed under a neat twelve-inch metal canopy, and fastened securely to the ceiling above the lamp, on a plate attachment having a crowfoot into which the lamp suspension bar is screwed, thus becoming a part of the lamp fixture. The special auxiliaries for series lamps have in addition an automatic cut-out and shunt resistance.

An interesting feature of the ballast bulb of the auxiliary provides economical protection against undue voltage rises by means of a fine iron wire that is mounted in a small glass tube somewhat resembling a miniature incandescent globe, which contains inert atmosphere to prevent oxidation of the wire. This iron wire possesses the property of increasing its resistance very rapidly as its temperature is increased, so that a lamp protected when such a ballast is connected in series therewith can be used on circuits having a considerable fluctuation of voltage without the loss in efficiency which would be unavoidable if the voltage was controlled by a resistance possessing no such graded temperature correction.

Mercury vapor lamps are used in some instances to great advantages in photoengraving establishments, but where anything but monochromatic work has to be dealt with, in any sort of close interrelation, or where colored objects are to be photographed by the rapidly growing direct-engraving process, which avoids the taking of an ordinary negative and its attendant silver-print by making one exposure with the screen in the camera direct from the object itself, the usefulness of mercury vapor lamps is limited. There is no doubt but that an operator could familiarize himself with the modified color interpretations, much as the china painter has to recognize the color-changes due to firing in the kiln, but such specialized training would do little to broaden the scope of lamps of this type. In their restricted field they are very efficient and are a great service to the trade.

MUCK RAKE IN CACTUS CENTER.

We are strong down here in Cactus, on the freedom of the press,
But there ain't no pencil-pusher runs our civic game, we guess;
And we've taught one chap a lesson that he never will forget,
And our weekly paper office has this sign hung up: "To Let."

We all welcomed this young journal, when in our midst it sprung;
Its owner came from Boston, and he brought out jest one lung;
He'd have got along jest swimmin' and put money in his jeans
If he hadn't tried to boss things like them 10-cent magazines.

He criticized our Mayor 'cause he allus wore his shaps;
And he gave our town officials some down-right orn'ry raps;
He spoke quite disrespectful of the cowboys from Bar C.
Who always shot at windows when they rode in town for tea.

He said we needed churches and an orchestra or two,
And the town'd never prosper till we put a railroad through;
But the straw that killed the camel was when his plans he laid
Fer a stop-the-gamblin' movement and an anti-vice crusade.

Well, we waited on the stranger with a brand-new coil of rope,
And we handed him some language that would shock a Band o' Hope;
And he streaked off fer the prairie like a kyote, jest hell-bent,
Which is why the Cactus *Muck Rake* is an outfit that's fer rent!

—*Denver Republican.*

A TRIBUTE TO SHAKESPEARE.

There is an editor in Boston, a man of very excellent parts, who is of Irish descent — a fact of which he is supremely proud. He is fond of contending that a majority of the great poets had, to a greater or less degree, Irish blood. One evening, while at dinner with a number of friends, he was holding forth on his favorite topic, when he was interrupted by one of the guests, who said:

"At least there was one exception to your contention — how about Shakespeare? Surely, you can't say that he was an Irishman!"

For a moment the editor was taken aback. But, quickly recovering his composure, he replied:

"Perhaps not; but his genius would justify the supposition." — *Edwin Tarrisse, in Lippincott's.*



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IN THE VALLEY.

Engraved by Inland-Walton Engraving Co.

CORRESPONDENCE

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names — not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

DO PRINTERS' ROLLERS NEED CARE?

To the Editor: BATTLE CREEK, MICH., June 6, 1906.

Among the curious anomalies that have recently developed in the advertising pages of the publications devoted to the interests of the printer, none is more curious than the one which displays a prominent manufacturer of roller composition paying out good money to denounce both the authors and the vehicles of publicity that have devoted space to articles upon the use and proper care of printers' rollers.

One would naturally suppose that anything bearing upon the intelligent treatment of the goods in which he is interested would find the manufacturer cordially in sympathy with its purpose. But no; acting as judge, and jury as well, this one summarily dismisses the practical deductions of an experienced user of his product with the verdict of "tommy-rot."

From the standpoint of a man who argues that the only way to get a good roller is to get a new one, this may be so. Equally sure it is that the man who pays the bills may be pardoned if he takes some little interest in the efforts of those who are voluntarily giving to him the benefit of actual experience in caring for and keeping at the highest point of efficiency the rollers which must be used every day for the production of first-class printed work.

The article in the May INLAND PRINTER (pages 268-9) was written by a pressman who often takes from his machines, at the close of the season, better rollers than some makers can drop new from their Gatlings. It was in no sense intended as a method of revivifying dead ones, but simply outlined a successful plan for keeping a good roller constantly good until its season had run. It may be of interest to know that the means advocated have not failed of their purpose during the past nine years coming under the personal observation of the writer.

Should the offended Doctor Osler of the roller trade be manufacturing with the same degree of wisdom that he is displaying concerning the actual use of his product after it is manufactured, a muzzle for use in his department of publicity ought to prove a paying investment.

JOHN B. NEALE,
Superintendent Gage Printing Company, Limited, Battle Creek, Michigan.

NO FREE "PUFFS."

A Western editor has come to the conclusion that the people who desire "puffs" in his paper must pay the following prices: For telling the public that a man is a successful citizen when everybody knows he is as lazy as a mule, $2.75; referring to a deceased citizen as one who is mourned by the entire community, when he knows he will only be missed by the poker circles, $1.08; referring to some gallivanting woman as an estimable lady whom it is a pleasure to meet, $3.10; calling an ordinary pulpit-pounder an eminent divine, 60 cents; sending a tough sinner to heaven with poetry, $5.

Written for THE INLAND PRINTER.

PARIS NOTES.

BY OUR SPECIAL CORRESPONDENT.

NEVER has there been so much disturbance in the French printing world as has been experienced during the months of April and May of the present year. In 1878 a printers' strike occurred in Paris about which the old members of the trade still talk, and which left us as a legacy two tariffs, one formulated by the men and rarely applied, and another more general in its application, imposed by the employers. In 1878, however, the late M. Waldeck-Rousseau had not brought in his law legalizing trade unions, and though the present Paris union existed, it had to be carried on under the guise of a friendly society and was as weak for trade purposes as it was lacking in legal status.

In twenty-eight years matters have completely changed and to-day printers' unions exist in every town in France, bound together in one federation, with its headquarters at Paris. When, therefore, the printers' federation of unions decided not to follow the lead of the General Confederation of Workers in a general strike on May 1 for an eight-hour day, but to devote all its forces to the realization of a nine-hour day, its action was severely criticized by some and its proceeding watched with interest by all.

The various local unions throughout the country entered into negotiation with the employers and in the majority of cases were received in a friendly spirit. Thus in many provincial towns a nine-hour day, fifty-four hours per week, was accorded during the month of April without recourse to violent measures. In certain districts the men were indifferent owing to inefficient organization and lack of unity, and the federation officials had to arouse them into activity. In others, more particularly the industrial regions of the north, the men's demands for a reduction of hours were met with a firm resistance and a struggle in which neither party has yet given way was entered upon.

In Paris, the mixed commission of masters and men had been unable for a long time to come to an understanding, the employers having refused even so late as the end of February to consider the principle of a nine-hour day. During April negotiations were again entered upon, the union's demands being met in a very generous spirit by the employers. Placed side by side, there is, indeed, very little difference between the men's and the employers' proposed tariffs.

The union's demands are: Nine-hour day at $1.44 per day, 15 1-5 cents per thousand piece work, 6 and 10 cents an hour extra for overtime. Night work, 22 cents per hour; overtime for night shifts, 32 cents an hour.

The employers' propositions are: Nine-hour day at $1.40 per day, 15 cents per thousand piece work, 5 and 10 cents an hour extra for overtime. Night work, 20 cents an hour; overtime for night shifts, 25 cents an hour.

The Paris committee did not feel justified in accepting the employers' proposals, but immediately referred the matter to the individual members by means of a ballot. At the same time they pointed out the exceedingly advantageous nature of the proposals, there being a difference of but 4 cents a day on the standard wage, 1-5 of a cent on the piece scale and 1 cent an hour for overtime before midnight. A signed agreement between the two parties, which would render all dispute impossible, and the maintenance of all salaries at present above the new tariff, were assured. Compared with the existing scale of $1.30 for ten hours, a decided advance was obtained and the committee in presenting the two scales to the members did not hide the fact

that they considered the masters' proposition sufficiently advantageous to be accepted.

On the ballot papers coming in it was found that the members were not of the same opinion as the committee, and a strike was immediately declared. A small number of firms immediately acceded on the men threatening to go out, a larger number followed suit within a week and now, a month after the outbreak of the strike, only three large firms remain obdurate. The moral support which would have been obtained from a signed agreement has been lost by the union. Even should the firms at present holding out agree to the tariff there will always be trouble from employers wishing to pay their staff, or the weaker members of it, at the old and still official rate of pay.

The Paris strike has to go on until full satisfaction is obtained, say the union officials, and active measures are being taken to ensure the success of the movement. A tax of 10 per cent of the total earnings of every member of the Paris Society of Compositors is being paid in exclusively for strike purposes, while some other branches of the trade not having any reserve funds to fall back upon have imposed a levy varying from 25 to 50 per cent of the total earnings. Throughout the country no less than 5 per cent is being paid for strike purposes by every member of the federation.

The police authorities evidently consider Paris printers a dangerous set of men when on strike, for no sooner was the strike declared than the prefect placed two or three policemen on guard outside every printing-office in the city. Even the daily newspaper offices, quite unaffected by the strike, and more strangely still, the foreign offices such as the New York *Herald* and the London *Daily Mail*, had a couple of policemen on guard at their doors day and night. No disturbances occurred, not even the first of May being sufficient to cause peaceful compositors to arm themselves with more dangerous weapons than composing sticks.

When the present dispute is over an attempt will be made to revise the news scale. The existing rate is $2.30 per night of seven hours for Linotype operators, and $1.90 for case and stone hands. At the same time it is intended to include a scale for English morning newspapers printed in Paris, the minimum to be $22 per week of forty-two hours for Linotype operators and $18 for stone and case hands. This is the amount generally paid for newspapers printed in English in Paris, but as certain new arrivals have sought to reduce the amount to the French scale it has been decided to fix a union minimum in order to prevent dispute.

With the recurrence of the general elections, French printers have had their powers of production taxed to the utmost and the city walls have had to bear an array of posters such as they will not see again for four years. Paris, usually so stringent in its regulations concerning bill-posting, grants complete liberty — or license — during election time. The tax on election posters is repealed; any or every building may be plastered with bills and the three-foot letters warning the billposter that he must not use his brush there are soon buried under a thick layer of printed paper. Considering that about a third of the job offices were on strike just before election time, it is surprising where all the posters came from. The printers who gave in to the strikers and were running with full staffs must have reaped a rich harvest during the month of May. There are rumors of certain candidates having sent their printing to the South of England to be executed. Should this prove to be true the gentlemen in question will be severely handled by the unions.

To miss publication only twice in three centuries is a record held by the *Petites Affiches*, a semi-official daily journal concerned with commercial affairs, the procuring of loans, situations vacant and wanted, and offers of marriage. For three hundred years the paper has been in existence. In 1814 it ceased publication for one day owing to its union with the *Grandes Affiches*. On May 1, of the present year, *Les Petites Affiches* failed to appear for the second time. The printers' strike had largely reduced the number of men available, the printers of the allied paper, *Les Affiches Parisiennes*, were not working on this day, and as the life of Paris was practically at a standstill, the management decided not to issue the paper.

American printers will be interested to learn that Paris now possesses a statue to Benjamin Franklin, the gift of Mr. John H. Hayes, an American banker in Paris. The statesman and philosopher who honored our craft is represented seated in an armchair of Louis XVI. style. The pedestal, in pure Louis XVI. style, is the work of an American artist, Mr. Charles Knight. On the sides are bas-reliefs by Mr. Frederic Bron, symbolizing the reception of Franklin by the King of France in 1778 and the signing of peace by Great Britain and the United States. The statue is placed near the Trocadero palace and the Rue Franklin, the unveiling of it being the occasion of a brilliant Franco-American demonstration.



WATERLOW'S PRINTING WORKS, LONDON.

Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.



IN my last letter I had to chronicle an action brought by the firm claiming to be the original builders of the "Cropper" Platen press against trade rivals, and this month have to record the death of Mr. Samuel Thacker, of the Cropper-Minerva Machines Company. It was Mr. Thacker who brought over the idea of the platen press, as we now know it, to Britain from the United States, where he had seen a Gordon press, the principle of which struck him as being the very thing wanted in the then state of the printing trade. The late H. S. Cropper worked in collaboration with him, and the result was the introduction of the "Minerva," or as it has come to be known, the "Cropper," to British printers. For nearly thirty years Mr. Thacker was a partner in the firm of H. S. Cropper & Co., and the business was purchased as a going concern by the sons of Mr. Thacker. Appointed managing director, his practical knowledge stood in good stead. In private life Mr. Thacker's hobby was horticulture, and he was in constant request as a lecturer, and all over the country was known for carrying off the first prizes for the display and grouping of plants. Nottingham is the home of the platen machine industry, and several firms devote their attention to its manufacture, among them Mr. C. Butterfield, who has just brought out the "Planet" platen, an up-to-date machine of a small size, 11 by 7 inches inside chase. The new platen takes up but two feet six inches square of floor space, and is suited for small work. The price is $150.

MR. C. W. BOWERMAN, the late Secretary of the London Society of Compositors, who was elected M.P. for Deptford at the last general election, has been very ill. He caught a chill on a journey from Dublin, and became seriously unwell. On examination by the doctors, not only were the lungs and other organs found to be deranged, but a form of blood-poisoning also set in, and for days his life hung in the balance, no one but his medical attendants and nurses having been permitted to see him. He is now in a fair way to recovery. Many of your American readers will no doubt know Mr. Bowerman, who was a member of the Moseley Commission that visited the United States a few years ago to study American institutions and methods.

A STRIKE has taken place in the office of the London *Star*, an evening paper that publishes several editions daily. A number of cyclists are employed to take the papers to the outlying suburbs, and these men, who term themselves "Slaves of the Wheel," consider that they are sweated by being paid low wages, and by having sums kept back by way of fines for certain offenses. These men work from 10 A.M. until 6:30 P.M. and occasionally to a later hour, and have to provide their own cycles, keep them in repair, and ride on an average from forty to fifty miles a day. Their wages vary from $3.50 to $6.50 per week. The whole question of hours, wages, etc., is to be submitted to the arbitration of three labor Members of Parliament, and before these lines appear in print there is no doubt that the matter will have been satisfactorily settled.

SEVERAL trade matters have been in dispute recently. The case hands and Linotype operators in Belfast made application for an advance in wages, which was refused by the employers, and at a meeting of the men's society the decision was come to to press the claim and to tender a fortnight's notice. The employers are now advertising for men to take the places of the strikers, and an advertisement in a London paper for compositors, at the rate of wages paid by the Belfast employers, resulted in 345 applications, and another for Linotypists produced more than fifty replies. The Newcastle-on-Tyne bookbinders asked a raise of 48 cents per week, the masters offered 24 cents, and the men accepted this, the new rates commencing on June 1, last. At Swansea, a busy Welsh seaport town, the printers have asked for a reduction of the hours of labor and an advance of wages. A conference on the subject was held with the employers at which both sides made concessions, and an agreement was arrived at and signed under which the new conditions are not to be disturbed for five years.

PRINTERS ought not to complain of bad trade, is the thought that strikes one when considering the number of new issues of books that are being published by various houses. Evidently there is a gold mine in the classics, for we have the "Temple Classics," "Newnes's Thin Paper Classics," the "World's Classics," the "Cameo Classics," "Nelson's Sixpenny Classics," "Harmsworth Library," and others. Fortunes would be speedily made but for the fact that no sooner does one series begin to claim attention of readers than half-a-dozen rival publishers put forth equally attractive editions. And so the game goes on. Surely all can not be successful; some must go to the wall. So much the worse for the publishers. But at least the printer and his kindred trades' associates stand to gain. The taste for literature is being fostered by this means, the appetite for reading grows, the demand for books increases, and it must and will be supplied. If the supplier — be he publisher, printer, or what not — loses sight of his own interests in the distractions of competition, he is bound to come to grief sooner or later. It is all a question of costs and selling price, and it is better to have worked at a profit and died, than never to have made a profit on one's work at all. However, the latest bidders for fortune in popularizing the best of the world's literature are Messrs. J. M. Dent & Co., who issue one thousand volumes at 25 cents each, printed in clear type on the best paper, with distinctive title-pages, tastefully bound, some illustrated and some running to seven hundred pages. These are to be called the "Every Man's Library," and embrace biography, children's classics, essays and belles lettres, fiction, history, philosophy and theology, poetry and drama, romance, science and travel; fiction library, it is interesting to note, being in historical sequence. One hundred volumes are to be published each year. They are also, it is said, to be published in the United States, but at a much higher price.

THE Master Printers' Association has called the attention of the publishing trade and others to the fact that a printer is not liable for the loss of or injury to his customers' goods arising from accidental fire during the period of his having custody of the goods, including the time during which they are in use for work in progress. Also that a printer's liability for the loss of, or damage to, goods while warehousing them, caused by robbery, damp, vermin, etc., does not differ from his liability in the case of loss or injury from fire. Customers' goods generally consist of paper, electro, stereo and other plates, wood and other blocks, completed work, the value of the recomposition of standing type, and the value of drawings upon stone, etc. The customer who has supplied paper should insure it during the whole time it is in the printer's hands. The amount of the policy after the work has been completed should cover the increased value. As to electrotype, stereotype and other plates, wood and other blocks, the customer should insure such goods if manufactured for him by the printer as soon as completed and also all blocks and plates, which have been placed by him in the printer's

possession for use. Standing type in calendars, directories, etc., or in other books kept in type for another edition or otherwise at the customer's request, is usually the property of the printer. The sum paid by the customer for keeping type standing usually does not include the right to require recomposition in case of injury or loss. The cost of such recomposition should, therefore, be insured by the customer.

Mr. Walter Hazell, a well-known London master printer, of the firm of Hazell, Watson & Viney, Ltd., who have large works, both in London and at the town of Aylesbury, about forty miles distant, is looked upon as the philanthropist of the trade by the workers, and certainly he endeavors to justify the title, as he is continually promoting some new scheme for the elevation or betterment of the men employed in the printing trades. He addressed at some length, the other day, the members of the London Chamber of Commerce upon the advantages of removing their works to the country. The advantages of the country established in a country town was a more important factor in its life than the same man in a huge London area, without local interests. He found, of course, some disadvantages. In a small population there are less varieties of employment and fewer openings for the ambitious young man to rise. He might feel too dependent upon the uncertain stability of one firm, or even might suffer from the whims of one employer. Some might object to the quietness of a country town, without a theater or music hall. Speaking generally, however, the advantages to the worker were greatly in favor of a country life, and if the employer was also benefitted there was good reason for developing the system. There was nothing new about it. Country factories were growing in all directions. Messrs. Cadbury, at Bournville, and Messrs. Lever Bros., at Port Sunlight, had created model villages, and advised other employers to remove into the country also. Printing was one of the most difficult arts to carry on away from its market, and



EUSTON STATION, LONDON.

were many. Supposing a skilled artisan earned $10 weekly in London, or $8 in the country, the extra $2 was more than consumed if he lives in a cheap suburb at a higher rent, traveling, and the extra cost of meals away from home, and this sum would be exceeded where a son or daughter living at home goes to work. If he lived in central London he spent on still higher rent what he saved on the other items named; against a country town cottage with six rooms and a small garden for $1.50 a week, he would pay more than this for two rooms in a mean street. The cost of food was approximately the same, being slightly in favor of the country in certain items. When other conditions were considered which can not be easily priced, the advantages of the country were still more obvious. The London workman living in a suburb will often spend two hours a day in traveling; he does not see his home by daylight, except on Sunday, for months in the year. In the country his house will be close by his work, and the home life will be comparatively better. With a better home, less wear and tear, pure air, a cottage garden, or an allotment, and a public recreation ground close at hand, the health and vigor of the worker ought to be greatly improved. If the employment be seriously intermittent, then a small holding ought to enable the worker profitably to employ his otherwise vacant time; or if overtime be necessary, the proximity of his home diminishes his fatigue. A workman yet every year more printing works were following the example set by Mr. Hazell's firm and others many years ago. Messrs. Waterlow — whose extensive works are in the city of London — had established a country branch at Luton, and many others had done the same — notably Messrs. Wyman & Sons, the Government printers, who have a building covering nearly two acres at Reading.

A new daily paper has been started in London with the curious title of the *Majority*. It is to be the organ of "all who work for salary," and is to advance their interests, where possible, against the capitalist class. The promoters make the following curious calculation: "An eight-page daily paper may cost anything from $5,000 a week, when its circulation is fifty thousand and when its special correspondence is inexpensive because the world is quiet, up to from $27,000 to $35,000 a week, if we suppose that its circulation is one million and that foreign events of great interest are happening at the moment, and the expense of Reuter's telegrams and those of its own correspondents are consequently very costly. Fifty thousand copies of a half-penny paper, allowing for returns, would probably not yield much more than $160 a day or $2,000 a week, leaving $3,800 a week to be made up from advertisements if the owner is not to face a loss. If the circulation became a million, then the aspect of affairs would be very different. A million copies would yield about $30,000 a week from

sales alone, and a grateful proprietor appreciating the support of his readers could afford to put in approved advertisements absolutely free." The new paper does not propose to do this, however, but will, under these circumstances, charge only half rates.

THE well-known Cincinnati firm of printing-ink makers, Messrs. Ault & Wiborg, whose ramifications are world-wide, established a branch in London, some few years ago, in a building in Farringdon Road, but, under the care of Mr. Charles H. Ault, the resident partner, the increase of business has been such that a removal into larger premises has been necessitated, and a new building, erected in St. John's square, E. C., is now occupied by the firm, and fitted with modern and up-to-date plant for the production of printing-inks on the spot. The new factory is situated next door almost to the old gateway of the Priory of St. John of Jerusalem, whose buildings covered an extensive portion of the land in this locality, and, in fact, they rest upon the old-world foundations of the famous priory. When the builders were excavating for the foundations of Messrs. Ault & Wiborg's new factory, they came upon the remains of the old walls, and these were so strongly built that instead of removing them they founded the new walls on them. Another interesting discovery was made at the same time, for it was found that these same old walls had in their turn been founded on the remains of a Roman edifice that had stood on the spot in the early centuries of the Christian era, when Gaul ruled the world. The locality is a central one for London "printerdom," and will enable Messrs. Ault & Wiborg to supply inks almost "while you wait," a distinct advantage to the printer. It may interest readers of THE INLAND PRINTER to know that the excellent and artistic series of colored advertisement inserts, that ran through that journal a few years ago, have been collected into book form and issued as specimens of what the firm's inks can do.

PATENT-LAW REFORM.

Our patent laws are not wholly satisfactory, in that they enable a manufacturer to let patents he has bought lie idle, often for the purpose of preventing others from making articles better than his. He has a monopoly under an old patent and doesn't want a rival operating under a new one. So he prefers to buy the patent a rival might use. An inferior article, perhaps, is kept on the market, while the purchased patent is tucked away. It is argued in the *Iron Age* that there should be a right to manufacture any patented article under a license, or that a patent not utilized within a certain time should become void. In England there is an agitation for patent-law reform on the ground that "a German — to take a concrete example — holding a British patent can prevent the manufacture of the patented article in Great Britain, while he is at liberty to produce it himself in his own country and sell it in Great Britain. The progress of industry which the patent laws should assist is too often hampered."—*Baltimore Sun.*

THE MAGAZINE BEAUTIFUL.

We can not pass the opportunity of sending our congratulations on the beautiful appearance of the June INLAND PRINTER. This is certainly one of the best printed numbers you have issued, and it is a matter of pride to us to feel that much of the beauty of the journal is owing to the fine appearance of the Champion No. 1 "Pure White" coated paper, used in same. We really do not believe that such results could be obtained on any other paper. Your journal is far in the lead over all others in every respect.—*The Champion Coated Paper Company.*

MIXING COLORS.

Blue is the most transparent of the primary colors, red is next, and yellow is very opaque. On account of this transparency blue does not lay evenly, almost invariably mottling on paper of a hard or glossy finish. Either blue powder, silicate of soda, powdered magnesia or pulverized castile soap mixed with the ink will often stop mottling to a certain extent, but the best way is to have special blue made up for the purpose it is to be used. For catalogue covers or wherever permanency is desired, blue should be avoided, both in the ink and paper, as it fades quickly.

It is impossible to print well over a bronzed surface. Even black will not hide it, and if it is desired to have the gold or silver appear as printed upon, the plates must be made so the bronzing can be done last, after all other impressions are perfectly dry. Bronze will effectually cover anything.



ST. JOHN'S GATE, LONDON.

In mixing a color, the darker ink should be slowly added to the lighter. It takes only a touch of red in yellow to make orange, but a great deal of yellow in red to get the same color. Many pressmen, not realizing this, or not heeding it after they are told, mix up several times more ink than is needed for the job. Also, in testing colors, they frequently waste great batches of expensive ink before arriving at a decision, when enough to cover the disk would be sufficient.— *Wesel's Message.*

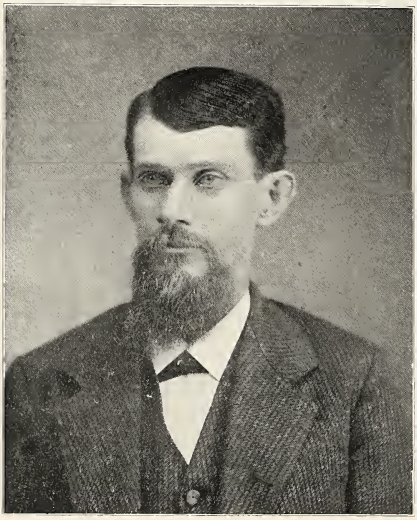
GOOD AS A SCHOOL.

I have been a reader of THE INLAND PRINTER for several years and have never missed an issue. I can not get along without it. To read it is to attend the best printers' technical school in the world.— *H. Zaspel, Holyoke, Massachusetts.*

DISCIPLES OF FRANKLIN.

NO. VIII — DAVID B. PYNE.

DAVID B. PYNE was born at Worcester, Massachusetts, April 7, 1837. Four years later his parents removed to Cazenovia, Madison county, New York, where he was educated in the public schools and the Oneida Conference Seminary of the Methodist Episcopal Church. At an early age he commenced work at the printing trade in Cazenovia, finishing his apprenticeship at Syracuse, Onondaga county, New York. Removed to Chicago in the spring of 1855 and took a position on the Chicago *Daily Times*. At the outbreak of the Civil War he enlisted in the service of the United States as a private under Siegel, served during nearly the entire period of the war, was promoted to Second Lieutenancy in the regular army, and resigned at the close on account of disability, having been twice dangerously wounded. Mr. Pyne has experienced all the vicissitudes of a printer's life as publisher, journeyman and itinerant. His home is now at 73 Station street, where he and his wife have resided for the past eleven years. Although now past his sixty-eighth birthday, he occasionally devotes a portion of his time to the "art preservative."



D. B. PYNE.

SAMUEL RASTALL.

Samuel Rastall was born in Cheltenham, Gloucestershire, England, October 4, 1838. He arrived in Chicago in April, 1852, with a band of immigrants and homeseekers who could not find accommodations in the town, and slept upon the floor of Fort Dearborn three nights in succession. He started for Milwaukee, where he learned the printing business. In 1854 a negro named Glover, a fugitive from the South, was captured and jailed in Milwaukee. Sherman M. Booth rode the streets on a white horse calling on all lovers of liberty to rescue the fugitive. This was accomplished by force. Rastall was a rapid and good compositor at that time and started to work on Booth's *Free Democrat*. When he asked for his first week's wages, he learned from Booth that his father had bound him an apprentice to him for a number of years. Monday found him at work on the *News*, a pro-slavery paper, and that day the proprietors received a letter from Booth, explaining matters and requesting them not to harbor the boy. This letter they published, and ridiculed Booth unmercifully. The lad was termed "Samuel Rastall, the white slave of Wisconsin," and the "white fugitive from justice." Booth was jailed for his part in rescuing the negro, who reached Canada safely, and Rastall was not molested further. He worked in Chicago occasionally in the late fifties. Madison street was then a street of scattered two-story frame boarding-houses, shaded by large cottonwood trees, and it was the general complaint of the landladies that "We have to walk clear up to Lake street for every blessed thing we need." Mr. Rastall was secretary and treasurer of Chicago Typographical Union eight years in succession, from 1880 to 1887, and was candidate of the United Labor party for County Clerk of Cook county in 1886, receiving twenty-three thousand votes. He invented the alphabet system of type measurement. At this writing, June, 1905, he is still working at the business on the Chicago *Daily News*.

OUT OF SORTS.

An Illinois weekly recently came out with the following apology:

"On akkount oph the phakt that our new dress oph type was entirely short oph letter ephs and sees when it arrived phrom the typephounders, and that we had diskarded our old phont oph type the minute the new krates kame, we will be kompelled to phlounder along the best we kan until the sorts arrive. We are exseedingly sorry to kause this inkonveniense to our readers, but iph we kould have phound any way to overkome the diphikulty we would have done so.

"This may seem like a joke to you, but it is no joke phor us. We therephore ask you to phorbear phrom kritisism, trusting that the missing karakters will be here in time phor our next issue."

BUSINESS OFFICE

BY EDEN B. STUART.

Under this head will be discussed ideas from all classes of printers, rich or poor, large or small, prominent or obscure, so long as their ideas are of practical value and along this particular line of work. Do not hesitate to consult this department on any problem of estimating that may arise. Printers are urged to forward particulars of any work that will prove of interest and assistance to the trade and to the sender. Address all communications to The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

HINTS FOR YOUNG PRINTERS UNDER EIGHTY.— By W. A. Willard. A discussion of the cost of printing. 50 pages, paper, 50 cents.

EMPLOYING PRINTER'S PRICE-LIST.— By David Ramaley. New edition, based on nine-hour day. An excellent book to use as a basis for correct prices to charge on any kind of printing, $1.

CHALLEN'S LABOR-SAVING RECORDS.— Advertising, Subscription, Job Printer's. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING.— By J. Cliff Dando. The scope of this book is indicated by the title. Has been unqualifiedly indorsed by users throughout the world. $10.

ORDER BOOK AND RECORD OF COST.— By H. G. Bishop. The simplest and most accurate book for keeping track of all items of cost of every job done. Contains 100 leaves, 10 by 16, printed and ruled, and provides room for entering 3,000 jobs. Half-bound, $3. Must be sent by express at expense of purchaser.

CAMPSIE'S VEST-POCKET ESTIMATE BLANK-BOOK.—By John W. Campsie. By its use there is no chance of omitting any item which will enter into the cost of ordinary printing. By its use a proper profit can be made on every job taken. Used by solicitors of printing in some of the largest offices in the country. 50 cents.

STARTING A PRINTING-OFFICE.— By R. C. Mallette. Contents: the Printer as a Business Man, Selection and Location of Plant, The Business Office, The Composing-room, The Pressroom, Light, Power and Heat, The Stockroom, The Book of Samples, Entering the Order, The Job in Process, Determining Cost, Bookkeeping, Preparing and Giving Estimates, Collections and Payments, Advertising and Office Stationery, Employer and Employees, Small Economies and Time-savers. 88 pages, cloth, $1.50.

PRINTER'S ACCOUNT BOOK.—A simple, accurate and inexpensive method of job accounting that is in use by hundreds of prosperous printers. It shows cost of each job, what should be charged for it, what profit *should be* made on it, what profit *is* made. Flat-opening, 10½ by 14½ inches, substantially bound, with leather back and corners; 400 pages, 2,000 jobs, $5; 200 pages, 1,000 jobs, $3.50. Specimen page and descriptive circular on application. Must be sent by express at expense of purchaser.

PRINTERS' INSURANCE PROTECTIVE INVENTORY SYSTEM, by Charles S. Brown. A blank-book 11½ by 15 inches, with printed headings, superfine paper, special ruling. It is a classified and *perpetual* inventory system, and informs you of your plant value every hour of the day, every day of the week, every week of the month and every month of the year. No. 1, loose-leaf, for large job or newspaper offices, $25; No. 2, for newspaper offices only, $15; No. 3, for job offices only, $15; No. 4, for small job and newspaper offices, $10.

NICHOL'S PERFECT ORDER AND RECORD BOOK is one of the most useful record books for printers running offices of moderate size that has ever been published. It serves both as an order book and a journal, no journalizing being necessary, making a short method of bookkeeping. By using this book you can learn at a glance whether orders are complete, what their cost is and if they have been posted. Once entered in this book, it is impossible to omit charging an order. Size, 9 by 12 inches; capacity, 3,000 orders; $3. Must be sent by express at expense of purchaser.

A MONEY-MAKING SYSTEM FOR THE EMPLOYING PRINTER.— By Eden B. Stuart. Contains chapters on: The Value of System, The Job Envelope, Individual Composing-room Ticket, Stock-cutting Order, Pressroom Job Ticket, Individual Press Report, Bindery Time Job Ticket, Bindery Job Report, Office Job Ticket, Individual Bindery Ticket, Pressroom Job Record, Presswork Record, Job Cost Record, Order Blanks, Enclosure Slip Estimate Memorandum, Pay Ticket, Daily Financial Report, Requisition Sheet, Bookkeeping, Perpetual Stock Balance Sheet, Profit and Loss Statement, Summary of Uncompleted Work, Stock Used Check, etc. Cloth, $1.

HOW TO MAKE MONEY IN THE PRINTING BUSINESS.— By Paul Nathan. Contents: The Printer as a Business Man, Starting an Office, What Class of Customers to Seek, How to Develop Business, Writing Advertising Matter, Taking Orders, Advertising, How to Talk to Customers, Cost of Producing Printing, Estimating, Acquiring Money, Pricecutting, Competitors, Profit and How It Should Be Figured, Buying, Doing Good Printing, Composing-room, Pressroom, Business Office, Bookkeeping, Management of Employees, The Employee's Opportunity, Danger in Side Ventures, Systematic Saving, Partnerships, Leakages, Keeping Up with the Times, Suggestions from Others. 375 pages, cloth, $3.

ACTUAL COST IN PRINTING.— By Isaac H. Blanchard. Contains full description of the purpose and use of all the blanks and records, together with complete cost-figuring tables in blank for the purchaser's own use; in the rear of the book are the necessary ruled pages for taking off the annual or semi-annual inventory of the plant, so that absolutely correct figures may be established and the records kept permanently in the office files; a set of tables of calculations on the 5-minute-unit basis; a set of tables of calculations on the 6-minute-unit basis; a complete set of the loose blanks described in the book; one full bound copy of the summary record book for all the departments, sufficient for one year's use in the office, $5. Style 2.—Annual Tables for Printers and Binders. Every practical printer insists on revising his cost figures each year, and for that purpose the cost-figuring tables, together with the blank sheet for use in annual inventory, have been bound together in convenient book form. $2.

ELLIOT FAY & SONS, Potsdam, New York: "We are sending you a booklet on which we would be glad to get an estimate, as follows: 2,000 copies, twenty-four pages and cover; inside in black and cover in black and gold ink; saddle-back wire stitch; size, 5½ by 8, trimmed; paper 25 by 38 — 90-pound at 9 cents; cover, 22 by 28 — 120-pound at 12 cents; cuts furnished by customer."

Run in 3 eight-page forms and 2 one-page forms.	
Stock, 3 reams — 270 pounds at 9 cents	$24.30
Cover, 1 ream, at 12 cents per pound	14.40
Four per cent loss on paper stock	1.55
Ink, 3 pounds, black	3.00
Ink, gold	.50
Composition:	
Type form, 19 by 31 ems pica.	
17,000 ems, eight-point, 25 hours, at 20 cents	5.00
Cover, ½ hour	.10
Make-up, 24 pages, 3 hours	.60
Lock-up, 3 eight-page forms, 1½ hours	.30
Lock-up, 2 one-page forms, ½ hour	.10
Make-ready, 17 by 23, 3 forms, 15 hours	3.00
Cover, 9 by 12, 2 forms, 1 hour	.20
Running time, 10,000 impressions, 15 hours	3.00
Hand folding, 6,000 folds, 5 hours	.50
Gathering, 6,000 pieces, 4 hours	.40
Folding covers, 2,000 folds, 2 hours	.20
Inserting, 6,000 pieces, 4 hours	.40
Stitching, 2,000 pieces, 4 hours	.40
Trimming, 3 hours	.60
Wrapping and tying, ½ hour	.10
One hundred per cent general expenses added to all productive labor	14.90
Twenty-five per cent profit	18.14
Total	$91.69

A. M. W., Norfolk, Virginia, writes: "Since reading your reply to Mr. Gregory's question in the April issue, and noting your invitation, I can not resist the temptation to 'butt in.' I have long been a close student of THE INLAND PRINTER and of late have found especial interest in the Business Office department. Although not in sympathy with your ideas of ascertaining cost or methods of estimating, and while I believe your methods may be something better and a help to the man who has been pricing his product by a system (very poor) of guessing, still I very much doubt if our best and foremost printers could have ever attained the degree of financial success that has marked some of them had they based their product upon your principles of cost and twenty-five per cent profit. Not that I do not consider twenty-five per cent a fair profit (if it is profit) above real cost, for I consider it more than fair and more than it will ever be possible to obtain under the present competitive system of doing business.

"My idea is that general expense is something that is entirely separate from and can in no proper or equitable way be governed by the cost of productive labor so long as the variable factors of operating and maintenance apply in different degrees to different machines or parts of equipment used in connection with productive labor; and I contend along with Mr. Gregory, that the item of general expense of operating a cylinder press or any other machine should be the same whether it was being run by the pressman at $24 or an apprentice at $6; the only difference to be made is the difference of the cost of productive labor, not general expense. According to your method of adding one hundred per cent to productive labor to get the cost of any or every part of production that appertains to printing, you lead your readers to believe that it costs but very little more per hour to run a 29 by 42 cylinder than a 10 by 15 jobber.

"Let us stop for a moment and see how this would work out: We will say for the sake of argument that the cylinder could be run for a productive labor cost of $16 per week and the jobber for $10; this gives us a cost of about 30 cents per hour for the cylinder and about 20 cents for the jobber; adding one hundred per cent general expenses to these figures, gives us 60 cents for the cost of the cylinder and 40 cents for the jobber. Now add twenty-five per cent profit, and we have 75 cents per hour and 50 cents per hour. Does any employing printer believe he can sell the product of these two presses at the figures and under the conditions named and realize a profit of 25 per cent? your system of estimating. It is not close enough to right, truth and justice, for it shoulders upon the class of labor in connection with which there is very little important equipment used, a cost which makes this class of labor prohibitive; while upon the other class it cuts off a proportion of cost which it naturally should bear, and unless we can sell just the right proportion of both classes of labor to make them balance up evenly, is not the seller the loser? And in any case is it fair to charge the customer that uses only the one class of labor more than it rightly should cost in order to enable us to do some work for another customer at less than it should rightly cost? And after all are we



A PERSIAN MASSEUR.

"I do not think I could illustrate more forcibly the fallacy of your system of finding cost and making selling prices than in the following case in point: Take a girl at $6 per week with no other equipment than a bone folder, a chair and a table, and we are prepared to do folding at a cost of about 22 cents per hour. Now take the same girl, at same wages, and put her on a $1,500 folding machine which consumes power to run and to which is applied a very much larger proportion of interest, depreciation, insurance, etc., than applies to the bone folder, table and chair, and which has a productive capacity of from four to twenty-four or more times that of the hand folder, and we have the same cost of 22 cents per hour. Think of selling the product of that machine at 22 cents plus twenty-five per cent profit, or about 30 cents per hour! Now I hold that in the first instance we would be charging too much, while in the latter not nearly enough, and therein lies the fault of not just fooling ourselves by such a system? Do we really know what our true cost is?

"What we need is a system of ascertaining cost of and pricing our product that is so true and just that these very elements will so strongly appeal to the vast majority of printers as to make the system acceptable to them as a basis upon which to work. A system back of which they can firmly entrench themselves, feeling convinced that they have eliminated to the greatest possible degree every principle of guessing and to the truth of which they can conscientiously adhere. A system which does not depend upon certain conditions for its accuracy or value, but which is amenable to all conditions. A system by which *each shop can correctly ascertain its own per hour costs for every class of labor and product.*

"Such a system I will attempt to outline in a later communication."

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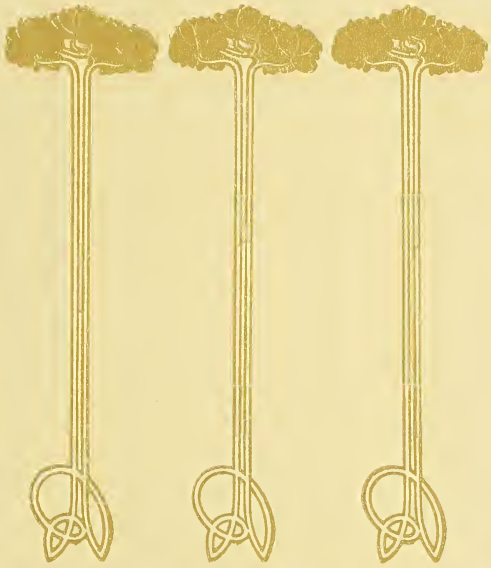
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PROGRAM
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in the Church Auditorium

H

Composition by W. Stevens, Inland Printer Technical School.

The Third Annual
Concert *of* Handel's

Messiah

in Harman Hall *on*
Thursday, February 8th,
at Eight o'clock p. m.

SOLO ARTISTS

Miss Elsie Smith, - - Soprano
Miss Ada Biggers, - Contralto
Mr. Jas. Arthur, - - - Tenor
Mr. Albert Kamp, - - - Bass

Composition by C. M. Shelton, Inland Printer Technical School.

Omaha Study Club

A Brief Outline of the Course of Study to be Followed During the Coming Season of 1905-1906



Composition by Erwin Conger, Inland Printer Technical School.

Job Composition

Under this head will appear each month suggestive analysis and criticism of reproduced and reset specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

VEST-POCKET MANUAL OF PRINTING. 50 cents.

SPECIMENS OF BUSINESS CARDS AND TICKETS — sixteen-page booklet — 25 cents.

SPECIMENS OF ENVELOPE CORNER CARDS — twenty-four-page booklet — 25 cents. New second edition.

MODERN LETTERPRESS DESIGNS.— A collection of designs for job composition from the *British Printer*. 60 cents.

SPECIMENS OF LETTER-HEADS.— Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

MENUS AND PROGRAMS.— A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

AMERICAN MANUAL OF TYPOGRAPHY.— New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. $4.

IMPRESSIONS OF MODERN TYPE DESIGNS.— Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

BERAN: SOME OF HIS WORK.— Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. $3.

SPECIMENS OF BILL-HEADS.— Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

LECTURES FOR APPRENTICES.— Reprinted from THE INLAND PRINTER. Comprises General Work, Commercial Work and Stonework. 56 pages, fully illustrated, 10 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1, postpaid.

ART BITS.— A collection of proofs selected from odd issues — half-tones, three-color prints, engravers' etchings, etc.— neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, 50 cents, postpaid.

TITLE PAGES.— By Theodore Low De Vinne. Third volume of the series on "The Practice of Typography." Treats the subject from three standpoints — Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, $2.

TWENTIETH CENTURY COVER-DESIGNS.— Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. $5, prepaid.

PLAIN PRINTING TYPES.— By Theodore Low De Vinne. First volume of the series on "The Practice of Typography." A treatise on the processes of typemaking, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, $2.

THE PRINCIPLES OF DESIGN.— By Ernest Allen Batchelder, Instructor Throop Polytechnic Institute, Pasadena, California. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, $3.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HINTS ON IMPOSITION.— By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins, and this feature alone is well worth the price of the book. Full leather, 4 by 6 inches, flexible. $1.

PORTFOLIO OF SPECIMENS OF PRINTING.— The second of the series, composed of a wide range of commercial work in pure typography, designed to show the maximum of effectiveness at the minimum of time and expense. Printed on loose leaves and comprises examples of plain and color printing; also a demonstration of the relationship between the size of the half-tone screen and various grades of paper. This portfolio is especially recommended to students and ambitious printers. Price, $1, postpaid.

Men do not attain perfection by striving to do something out of the common. Perfection is acquired by doing common things uncommonly well.

A characteristic feature of much of the printing of the present day is the lack of harmony to be found therein — harmony of type-faces, harmony of shapes, harmony of tones or colors, in fact, harmony of every kind, being sacrificed in the attempt to attain "originality" even though the results be conspicuous by their freakishness rather than by any beauty of design or color whatever. This is not only confined to the classes of printing which allow greater freedom in the use of decoration and color, but is found in assortments of type ornaments and cuts which are thrown somewhat indiscriminately into business stationery which should be modest and dignified in appearance rather than a mixture of what the office affords in the way of ornamentation.

A few definitions from "The Principles of Design," by Ernest A. Batchelder, will greatly assist our understanding and appreciation of what harmony means in relation to printing:

"Tone harmony occurs when tones sharing some common quality are used; or lacking this, the differences may be reconciled by varying the quantities of the tones used.

"Measure harmony comes from the use of measures having some common unit of division; or again in the cutting of large measures in such way that they will keep their proper plane in the composition.

"Shape harmony results from the use of shapes having some common character in lines or areas."

In the use of initial letters frequent illustrations of the lack of harmony are found. In this connection the



FIG. 1.

first consideration should be the harmony of the type-face with the initial, and this should naturally suggest the fact that for a page on which the text is in old-style a letter of modern cut is wholly inappropriate. Where a plain initial is to be used, a larger size of the type-face used

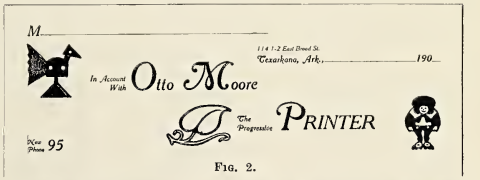


FIG. 2.

in the text is always productive of harmonious results. Where decorative initials are used, the most pleasing results occur when the shape of the initial conforms to the shape of the type-page. The tone harmony of the initial and the text is a thing often overlooked although of the utmost importance. In Fig. 1 are found the results of lack of consideration of shape harmony, measure harmony or tone harmony. The shape of the initial itself, together with the surrounding decoration, is not in keeping with the balance of the line, the size of the initial is not proportionate to the whole, and the tone, by virtue of the delicate

ornamentation and the fact that in the original the letter proper was in red, is, to say the least, rather a weak combination.

The use of decoration on business stationery should be carefully considered and it should be in harmony with the style of type used or have some relation to the business for which the stationery is intended. But the use

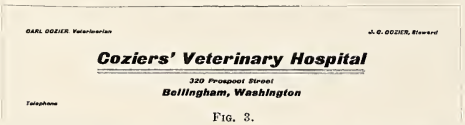


Fig. 3.

of ornamentation simply to "fill up," and that without regard to tone harmony, shape harmony, or the appropriate use of the decoration, should be avoided. In Fig. 2 an example of this style of stationery is found. While it is possible to find a plausible theory for the association of these ornaments and the type-face, and while the leaf and stem decoration is thoroughly in keeping with the italic, it is rather hard to find wherein the angular bird possesses anything in common with the balance of the job, to say nothing of the fact that the ornaments are not particularly appropriate in connection with the printing business, nor is there any call for this amount of decoration on stationery that should be dignified and businesslike.



Fig. 4.

Fig. 3 is a striking illustration of the failure to consider the harmony of rule and type-face. The definition of harmony as "having something in common" surely is not applicable to the underscoring of this heavy, bold type-face with a hair-line rule. This is an error frequently found, not only in the use of rules for underscoring but in the construction of panels. A little thought given to the employment of rules which are appropriate in weight to the type-face will be amply repaid in the appearance.

An inharmonious association of type-faces, together with the use of decoration far removed from the type-face in whatever phase of harmony it is considered, is found in Fig. 4. The bringing together of the heavy, angular letter and the delicate italic produces a particularly unpleasant feeling, as does the association of the hair-line decoration with the word "concert." The whole

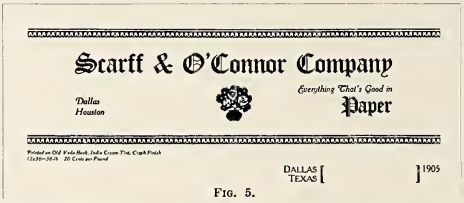


Fig. 5.

forms a mixture of heavy, stiff rules and type with delicate ornamentation and italic which is far from pleasing.

Figs. 5 and 6 show, in marked contrast to the preceding specimens, a harmonious association of type and decoration.

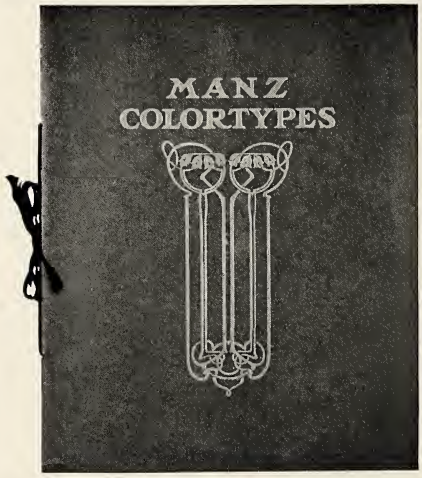


Fig. 6.

Fig. 5, in the original of which the initials in the feature line and part of the ornament were in red, with the balance in black, gives a pleasing harmony of shape and tone. While the ornament in itself is no more appropriate for the business than was the decoration used in Fig. 2, it does not afford the unpleasantness one experiences in the sudden change from the graceful italic to the angular ornament. Fig. 6 is an exceptionally interesting example of the use of letters and ornaments which, having something in common, are harmonious.

MACHINE COMPOSITION

BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

THE LINOTYPE, 1897. By Frank Evans. 100 pages. $3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.— Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.— By E. J. Barclay. 64 pages. $1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.— By S. Sandison. 36 pages, vest-pocket size. Price, $1.

STUBBS' MANUAL.— By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, $1.

CORRECT KEYBOARD FINGERING.— By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FACSIMILE LINOTYPE KEYBOARD.— An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HISTORY OF COMPOSING MACHINES.— By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record — 1822 — down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines — Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, $3; cloth, $2; postpaid.

THE MECHANISM OF THE LINOTYPE.— By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Visc-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, $2, postpaid.

MARK TWAIN'S DIVERSION.— Most people know that Mark Twain sunk many thousands of dollars in the Paige typesetting machine, but few knew the reason he gives for going into it. One day, in Hartford, he was asked this reason by R. W. Nelson, now president and general manager of the American Type Founders Company. Twain's reply was given in his usual drawling twang: "Well, Nelson, I'll tell you how it was. You see, in the fall and winter I go up to Elmira, where m' wife's folks live, and write books and things. In the summer I come down to Hartford, and have to have something for a diversion, and this typesetting machine business, Nelson, is a helluva diversion."

FURNISH GOOD COPY.—The *Western Publisher* says: "If you have put in a new typesetting machine and are standing behind the operator and wondering why he doesn't get up some of those five and six thousand per hour you have heard about, take a look over his shoulder at the copy you have given him to set. Does he have to fold it? Can you read it at a glance? Is it written on a typewriter, or with a light pencil, lightly held? Does it contain marginal notes, written sidewise and endwise and crosswise? To keep a Linotype going the operator finds it easier if he is not obliged to study and translate and cuss the copy. There is no one thing that will take the ambition out of him like illegible copy. If it is easily read it will put money in your pocket as well as his."

TABULAR WORK.— A Kansas operator writes: "Would you kindly advise me as to the best and quickest way of lining up two, three, four and five columns of reading, names and figures on one slug?" *Answer.*— It is not practical to do this with any degree of speed, especially more than two columns. In this instance the first half of the line is assembled without spacebands until the assembler slide reaches the mark made to indicate half measure, and then the balance of the line is assembled in the usual manner with spacebands. You will get only a fair alignment of the columns in this way, as it is not possible to get an absolutely correct justification of the first column. The only way in a multiplicity of columns is to set each section requiring independent justification on separate slugs and cut them down to size.

LINE-DELIVERY CARRIAGE.— A South Dakota operator writes: "The machine was in an awful condition when I got here. The operator was pulling the line-delivery carriage back the last inch by hand; the line-transfer finger was not pushing the spacebands under the pawl; the pawls in the spaceband box were worn unevenly; there was half a galley of bent matrices; the guides in the magazine were bent and matrices were running in wrong channels, and everything everywhere was loose. I tightened and adjusted and wiped and oiled; cleaned magazine and matrices; took off keyboard and cleaned it thoroughly, and after ten days she is running like a bird, with one exception. The line-delivery carriage will not go far enough over into elevator. A fairly tight line allows the last matrix to jump off and bend up. It is a new-style machine and I looked for the adjustment in the track and found it inside the channel — a block and a set-screw — but the carriage did not even touch it. I took it off entirely, but it made no difference. Everything else I have been able to fix but this. What shall I do with it? I have overcome it by setting the line gage at 12¼ ems, but that, while it saves the matrices, is not satisfactory, as it makes so much hand spacing." *Answer.*— If the machine starts into action before the last matrix in a line is fully inside the first elevator pawls, the result will be destruction of the end matrices. To test this, throw in the controlling lever and send the line delivery carriage over. Then go around to the back of the machine and see if the roller on the line-delivery carriage lever knocks the stopping pawl off the stop-lever more than 1-64 inch. If it does, the machine will start too soon. Adjust by means of the plate carried by the stopping pawl against which the roller strikes. This adjustment must be looked after whenever the position of the arm is changed in readjusting the split bearing to return the line-delivery carriage properly, as any change in its position affects the adjustment of the starting pawl.

TEN THOUSAND AN HOUR.— Adolph Werckenthin, a graduate of the Inland Printer Technical School, on the Atchison (Kan.) *Globe*, writes: "It gives me genuine pleasure to be able at this time to report further progress, by means of this clipping from to-night's *Globe:* 'A Lino-

type machine at the *Globe* office, operated by Adolph Werckenthin, turned out 850 lines from 12 to 2 P.M. Saturday. This is equal to over four columns of type, and measures over 21,000, using the old minion measure of the hand-type days. The *Globe's* machine type is minion on brevier body; that is, minion leaded with twelve-to-pica leads.' The mill is speeded to eight lines per minute. This machine is used for advertisements, set in black letter, every day; also an average of six complete changes to nonpareil and minion, daily, to turn out legal notices of all kinds for State, county, city and banks; baseball



A. EBERT.



ROBERT SUTTON.

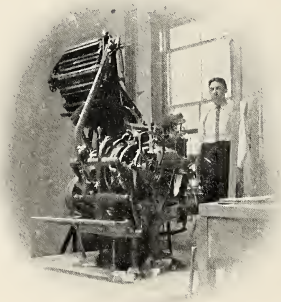
RECENT GRADUATES, MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

scores, markets, want advertisments and tabular work, in addition to regular straight reading matter. The care of both mills in this battery also devolves entirely upon me and I find it a pleasant task at all times. Average daily output of machine No. 1, just referred to in detail, is 2,500 lines, linometer measure. On days when the bulk of the copy for No. 1 is straight reading, manuscript, typewritten and reprint, the output is 2,700 to 2,800 lines, always including the mail list, which goes in nonpareil black letter. We use natural gas and with the Linotype thermometer the machine governors are readjusted weekly to a temperature of 540° F. The new crucible for No. 1 was placed as you suggested and is giving perfect slugs. I have found by experience on fifty different machines, from the old Baltimore to the double-decker, that I was better equipped when I graduated from the Inland Linotype school, nearly four years ago, to work as machinist-operator than the average Linotypist I encountered. Out of a possible two hundred and fifty, only a half dozen were skilled and thorough and turned out 2,000 lines per day all the time, and they studied and applied information contained in the Inland Printer School instruction book, the 'Mechanism of the Linotype,' which is for sale to operators everywhere, as well as students in the Technical School. The three months of my time invested in the Inland Printer Technical School I have found was the wisest step of my fifteen years' experience in the 'art preservative.'

"Inland" professors now exult
To see their teaching's good result.
'Tis true and well that all things go
When once the proper way you know.

The proper way is positively and very clearly demonstrated to all comers who enroll in the school, and every student who means business has the opportunity of his life thereat. The *Globe* battery is nearing the second anniversary of its installation and has given splendid satisfaction; the total average output for the first year was 3,600 lines per day, and at present the output is 4,000 lines per day and over; the largest of any one day was 4,300."

SECOND ELEVATOR AND SPACEBAND ADJUSTMENTS.—H. G. W., Bowling Green, Ohio, writes: "(1) I notice that the second elevator on my machine goes up with a bang; what causes it and how is the adjustment made? (2) What causes spacebands to pi before reaching the box, and must the lever always be pushed to the right in order to lock it? (3) I need some sorts. What do extra matrices cost, also spacebands?" *Answer.*—(1) There is a cushion spring which operates on a rod just beneath the right-hand end of the shaft on which the second elevator is mounted. If the spring is broken, it will not steady the elevator in its ascent. The nut on the rod can be adjusted so that the spring is compressed sufficiently to steady the lever when it rises. (2) The trouble in both instances is caused by misadjustment of the levers which transfer the line of matrices to the second elevator and deliver the spacebands to the spaceband box. The line transfer lever is operated by the double cam near the driving pulley. In some machines the roller which rests against this cam (the inner one) has an eccentric pin. This can be adjusted so as to cause the transfer slide, after a line has been transferred, to be retracted far enough to the left to lock itself behind the trip lever in the top guide for the first elevator. In other later machines there is no eccentric pin, but the bearing for the arm is split and the screw which holds it can be loosened and the whole arm moved and the roller located so that the lever will make the proper stroke to lock the transfer slide. The spaceband lever, however, is not moved by a cam, but is connected by a turnbuckle to the transfer lever, and this turnbuckle must next be adjusted so that the pawl delivers the spacebands just beyond the point of the inclined rails in the distributor



HERMAN COONS, I. P. T. S. GRADUATE, AND MODESTO (CAL.) "HERALD'S" DOUBLE-DECK LINOTYPE.

box. This will permit the lock to be pushed inward to lock the levers when recasting, etc., without drawing the spaceband lever back by hand. Now adjust the screw in the transfer slide which strikes against the spaceband lever when the levers come together to push the spacebands under the pawl, so that the bent finger on the transfer slide passes into the slot cut in the pawl and comes within one-eighth of an inch of the bottom of the slot. (3) Matrices cost 3 cents each for single letter and 4½ cents for two-letter. Spacebands cost 85 cents each.

RECENT PATENTS ON TYPESETTING MACHINERY.

Two-letter Matrix Rail.— P. E. Kent, Utica, New York, assignor to Mergenthaler Linotype Company, New York city. Filed October 20, 1905. Issued May 22, 1906. No. 821,296.

THE ANTITYPO.

An amusing story in a recent issue of *Newspaperdom* describes the difficulties of a country printer with his compositors, and how, through the pi-ing of a form, and the carrying off of the type by a boozing printer, he determined to have a composing machine. He was too poor to buy one, but set to work and trained ants to do the business. How he managed it is told as follows: "Ants in Arizona are as plentiful as grasshoppers in Kansas, and so I collected a sufficient number and put in two hours each day in training them to carry type. It was slow work at first, until the ants became accustomed to my regular visits, and began to know me. They are real affectionate critters and possessed of more sense than some humans. After I had succeeded in training them to carry the type and deposit it in my hand, I next took up the work of colonizing them. I divided them into groups of twenty. I prepared a series of small runs or troughs leading to tightly enclosed colony houses. I painted each house a different shade, ten in all, mixing with the colors various flavoring extracts; I also painted the runways. The tops of the houses and rails of the runways I coated with tar. This insured they would not cut corners or cross lots.

"I trained a colony at a time, using sugar and meat to attract them to their homes, until the ten colonies were well organized. I then made a duplicate section, and proceeded in like manner until I had trained ninety families. I divided the groups of colors with higher compartments, cross-checked the houses and runways, and in this way succeeded in making distinction between them. The variation of flavoring was the most difficult portion of this task, but calling into use some harmless extracts from the drug store, I succeeded. Ants have a keen sense of smell and sharp eyes. They are naturally lovers of the home and lead the simple life. They are not good mixers. When one of them wanders away from his own hill to a neighboring hill, the chances are that before he is down the hole an inch he will learn of his mistake and come out on the bounce with about sixteen on top of him. They have a system of protecting their stores from invasion and stand for no intrusion. They will meet an ant from a neighboring hill on the path and pass the time of day or exchange glances without disturbance, but that is as far as it goes — no taking each other home to dinner, or anything like that. Selecting my colonists from ninety different hills, therefore, you see, I was sure to keep the families separated.

"Having my force organized, I resumed their early training of carrying type, and it was but a short time till they would carry a type down the runway from the house and deposit it in a stick which I held in my hand. The signal to start from the house was given with a tap of a lead pencil on the roof of the house. Finding this plan slow, I rigged up a keyboard, consisting of a series of flat sticks with a wire running through one end, arranged them in banks, and labeled them. The sticks or key-levers were supported at the outer end by strings which passed through an arch extending above the houses. Fastened to the end of the strings was a great primer quad. Touching the key raised the quad, and as it was released it fell with a thump on the housetop.

"In less than a month's time I was making splendid progress. To keep the infrequently used sort colonists in practice, I each day gave them a little exercise, distributing later the type they delivered. It was while exercising them one day that I happily discovered that the colonists could distribute as well as set the type. Hand distribution was quite slow, I having to first distribute the type in a regular case and later transfer it to the colony houses. Depositing some of the pied sorts on the 'plaza,' as I termed the board where the turn was made after the ants had finished their task of bringing the type out and delivering it, and going about some other task for the time being, to my astonishment the sorts had disappeared upon my return. Placing a handful of dry type on the 'plaza,' I awaited results. Attracted by the familiar odors of the type which had been carried back and forth over the various runs and handled by each family only, the plaza soon swarmed with my little industrials. They grabbed right and left, and in a jiffy the board was clear and the type was safe in its proper place.

"Hurrah! My vengeance is complete. Avaunt with the square man! Back to the ties and the brake-beams, Billy O'Keefe! I danced in glee. Behold the marvel of the century — the Antitypo.

"My joy knew no bounds. Visions of wealth by forming a company, selling stock, getting a patent, and all that, came to me. The following few months it was a most interesting pleasure to edit the *Stockman*. I never thought of writing copy. I would sit down to the Antitypo, compose my matter as I went along, and the little red slaves seemed to make merry of their work of delivering the type to my stick in response to the key taps. I kept the quads and some extra spaces at hand to justify the lines.

"At this point in my story I want you to imagine you see three stars with a nonpareil on each side, because the scene is about to change.

* * *

"One summer afternoon I received a caller — no less a personage than George Washington MacFarland. Mac said he'd been lifting sods on the Tombstone *Epitaph* for several moons. The editor, Bill Hattich, was mad at him. Mac said he just couldn't stand for that. He had known Bill since he was a yellow-headed kid, and before he would stay there and argue it out with Bill he decided to hit the pike. He wanted to know how work was in Wilcox. I told him there was nothing doing, and with pride bubbling over asked him to step back into the room and I would show him why. Seating myself at the Antitypo, I began work. When Mac saw those ants coming forward with type on their backs, depositing it in the stick and returning, his eyes bulged out; he gasped and staggered against the stone.

"'For God's sake, Charlie,' he said, 'I don't mind the ordinary kind, but the cut is switched on me this time. They are shorter than snakes, and I see legs, too — and — and — is that type — ?'

"At this point poor Mac fell on his side against the runways of the Antitypo. I heard a crushing sound as he fainted away. I concluded he had broken a rib. Carrying him to a seat, I did my best to bring him to. The sight was too much for him. He thought he had them, and it was several hours before I sobered him up to his senses.

"When I returned to the Antitypo, all was chaos. The ants were running wildly about; they gave no heed to signals; the stampede was complete. And the cause of it all — the irony of fate. The crunching noise I had heard when Mac fell against the runways was not his rib, but the breaking of a pint bottle of 'booze' he was carrying in his inside pocket. The alcohol had done its deadly work. My colonists, true to their calling, drank long and deep of the trickling red-eye, and every six-footed son-of-a-gun went bughouse. They never regained their senses, and before I would attempt to train a new lot, I decided to come out of the business."

BEST THAT MONEY CAN BUY.

Send me THE INLAND PRINTER — the best publication the "coin" can buy. I do not care to endure further self-inflicted punishment by doing without it.— *Carl L. Matheson, Statesville, North Carolina.*

NEWSPAPER WORK

BY O. F. BYXBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Byxbee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLEN'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

STARTING A PRINTING-OFFICE.— By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, $1.50, postpaid.

GAINING A CIRCULATION.—A book of 60 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, $1, postpaid.

ESTABLISHING A NEWSPAPER.— By O. F. Byxbee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, $1.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, $3.50, prepaid.

PRACTICAL JOURNALISM.— By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, $1.37, postpaid.

THIS unusual paragraph appears in the publishers' announcement at the head of the editorial column of the Lodi (Ohio) *Review:* "Devoted to the interests of Lodi and vicinity, intended to be a legitimate newspaper. Items of news worth sent in good faith welcomed. Items intended to 'dig' people not welcomed."

CONGRESSMAN CRUMPACKER, of Indiana, has introduced a bill into the House of Representatives which provides that persons charged by the government with fraud shall have the right to a trial. As the law stands now an individual or firm may be deprived of the use of the mails if in the opinion of the Postmaster-General they are guilty of fraud. The new law would not or should not necessarily mean that every one who should be deprived of the use of the mails must have a trial, but that it will be their privilege to ask a trial if they desire. Undoubtedly those whom the Postmaster-General brands as frauds would in nearly every case (in their own minds, at least) admit that they are guilty and be willing to submit without further publicity, but the rights of the citizens should be safeguarded against error of judgment on the part of any one person or official.

POSTMASTER-GENERAL CORTELYOU'S recommendation to Congress that a commission be appointed to inquire into the subject of second-class matter has aroused great interest in all publishing circles. The question of second-class rates has become greatly complicated, and so many points are left to the discretion of the officials that a conflict of rulings has many times resulted. This is a step that should have been taken long ago and is one in which every publisher is vitally interested. The movement for a revision of the law has led to the forming of a national organization of the publishers, managers and editors of weekly newspapers, known as the "American Weekly Publishers' Association." The organization is unique inasmuch as there are no dues or assessments, and it is hoped that every publisher of a weekly newspaper in the country will become identified with it. Full particulars and application blanks may be secured by addressing the association at Room 413, 80 Dearborn street, Chicago.

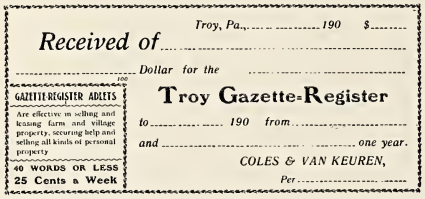
THERE is so much being said about "graft" nowadays, that the following item from *Newspaperdom,* entitled "Uncle John's Logic," is particularly apropos:

See that Cigar the Publisher is smoking, with a Pretty Red and Gold Obesity Belt? He only smokes that kind when the Paper Salesman is around. It is Honest Graft. Want to know what that is, children? The word "honest" is a Typographical Error for "non est" (for example, "a non est publisher"), meaning there is no such thing. Write your favorite Editor for the meaning of "Graft." He will look in his Dictionary and find this: "Graft: something Annexed to a tree which does not Belong to it." So he will answer your Question this way: "Graft is something annexed by a man which does not Belong to him." Then you will say, my, my, but doesn't he know a lot? If you want to know things, children, be an Editor; but if you want to Get things, be a Publisher. Class dismissed.

SUBSCRIPTION RECEIPT.— Publishers will be interested in the accompanying receipt blank used by the Troy (Pa.) *Gazette-Register.* The publishers write as follows:

THE INLAND PRINTER, *Chicago, Illinois:*

DEAR SIRS,— We wonder how many of your country-publisher subscribers are using a newspaper receipt like the one herewith. We plugged along for nearly twenty years writing stubs for our receipts to subscribers. Then


Troy, Pa., ... 190 $.....

Received of .....

..... Dollar for the .....

GAZETTE-REGISTER ADLETS

Are effective in selling and leasing farm and village property, securing help and selling all kinds of personal property

40 WORDS OR LESS
25 Cents a Week

Troy Gazette-Register

to ..... 190 from .....

and ..... one year.

COLES & VAN KEUREN,

Per .....

we installed this manifold system. The week's receipts make one item in the cash book and it tells a lot. Whether receipts are keeping up with earnings, how they compare with other years, etc. We file the manifold copies as a safeguard against misunderstanding with our subscribers.

Very truly yours, COLES & VAN KEUREN.

These receipts are bound in little books, every alternate leaf being blank. A sheet of carbon paper is used when writing a receipt so that the written portion appears on the blank leaf, which remains in the book as a permanent record of subscription receipts. Has any publisher a better system? If so, send me a description of it and I will be glad to publish it.

THE physicians in Lake Geneva, Wisconsin, used to advertise; then they stopped, but now they are again advertising. When they took their cards out of the local newspapers, the newspapers decided that the title "Dr." was also an advertisement, and in order to be consistent concluded to substitute "Mr." whenever they had occasion to refer to one of the profession. The medical men were not long in discovering a reason for changing their views.

AT a recent banquet of the Sussex Press Club, of Lewes, England, a very unique menu was furnished by the Sussex

Express in the form of a diminutive paper appropriately named *The Feeding Times*. The following are samples of its advertisements:

When you are *run down run up* to Booth's Restaurant and dine wisely and well. Pay before leaving, or when you *run out* you may be *run in*.

Gaiter's Soothing Syrup for children teething. A Tired Mother writes: "Your syrup causes baby to sleep all night. There has been a remarkable improvement in my husband's language."

Noises in the head. Tryem Marvelous Ointment. A Sufferer says: "I had noises in the head. I used two boxes of your Ointment and I can now hear nothing."

THE San Francisco earthquake and fire have passed into history as the greatest calamity to befall a single city in the country. The newspapers there suffered greater loss than did those in other great fires, and yet it can not be



The Call=Chronicle=Examiner

SAN FRANCISCO, THURSDAY, APRIL 19, 1906.

EARTHQUAKE AND FIRE: SAN FRANCISCO IN RUINS

NO HOPE LEFT FOR SAFETY OF ANY BUILDINGS

BLOW BUILDINGS UP TO CHECK FLAMES

WHOLE CITY IS ABLAZE

CHURCH OF SAINT IGNATIUS IS DESTROYED

MAYOR CONFERS WITH MILITARY AND CITIZENS

said that they missed publication, although three of them were obliged to combine forces and issue from an adjoining city. The Oakland *Tribune*, itself suffering from the effects of the earthquake, willingly put its machinery at the disposal of its stricken brothers across the bay, with the result that the "*Call-Chronicle-Examiner*" was issued the following day. The first page of this issue is reproduced herewith. There were only four pages, it is true, and there was no advertising, but it was a newspaper nevertheless, and it was undoubtedly more eagerly read than any previous number of either of the three papers.

AD.-SETTING CONTEST NO. 20.—A slight departure for THE INLAND PRINTER'S twentieth ad.-setting contest will be made from the previous custom, inasmuch as the exact copy will not be furnished, but the contestants will be allowed to make up their own copy from the facts given. A number of requests for a contest of this character have been received, as it is contended that, particularly on weekly papers in the smaller towns, a compositor is not only expected to set the ad. but to write or at least suggest the copy. W. B. Mayes, of the Whitney (Tex.) *Messenger*, suggests that the contestants in Contest No. 20 get up an advertisement from the following data:

W. T. Herrick, of 320 Washington street, the hardware dealer, wants a good trade ad., giving especial prominence to his line of Edison Phonographs and gold-molded records, for which he has the agency. He wants to impress the public that the phonograph is the greatest entertainer for the home; that for $20 to $30 any one can own the latest improved machine, and that no skill is required to produce the finest selections of music by the world's greatest artists; complete list of latest records received every month, which can be had at only 35 cents each — and they can't wear out. Invite everybody to the store to hear the music, and state that he is having a large sale on this line of goods, and no dissatisfaction from any purchaser, etc.

Mr. Mayes will himself be a contestant, but as the advertiser is fictitious he will have no advantage over other contestants. Such a contest will afford an opportunity for compositors to show their talents not only as compositors but as ad.-writers as well, and will be a means of helpful education for all. It is regretted that the size of the ad. as well as the wording can not be left to the compositor, but it will be necessary to have the ads. of uniform size to facilitate the handling of the usual large number of specimens. Then, too, it is necessary to restrict the size to a rather small sheet for the same reason. The same rules which have so satisfactorily governed previous contests will be followed as nearly as possible:

1. Set 26½ ems pica wide by 6 inches deep.
2. Each contestant may enter two specimens.
3. Compositor must make up his own copy. He is at liberty to add to the copy or omit portions, as he deems advisable, the object being to compile and set an ad. which will sell goods.
4. No illustrative cuts allowed. Material used to be limited to type, border, rule and such cuts and ornaments as are furnished by typefoundries in series or as parts of border and ornament fonts.
5. Two hundred printed slips of each ad. to be mailed to "O. F. Byxbee, 194 Fifth avenue, Chicago."
6. Use black ink on white paper, 6 by 8 inches exactly.
7. Write plainly or print name of compositor on one slip only, which should be enclosed in the package.
8. Each contestant must enclose 20 cents in stamps or coin to cover cost of mailing a complete set of specimens submitted. Canadian dimes may be used, but not Canadian stamps. If two designs are entered, no extra stamps will be required.
9. Each contestant will be given an opportunity to select the best three ads. A penalty of three points will be inflicted on leading contestants where a selection is not made.
10. All specimens must reach me on or before August 15, 1906.

The slip with the compositor's name and address and the stamps or coin should be enclosed in the package and not sent in a letter; in fact it is better not to write a letter at all. It is necessary to increase the cost of entering to 20 cents to cover the expense of postage and handling an ad. of larger size. The usual plan of designating the best ads. will be followed. A complete set of all the ads. submitted will be mailed to each competitor within a few days after the close of the contest, and the compositors themselves will act as judges, each being requested to select what in his judgment are the best three ads., and those receiving the largest number of points will be reproduced in THE INLAND PRINTER, together with the photographs and brief biographical sketches of the compositors who set them. Three points will be accorded each ad. selected for first place, two points for each second choice, and one point for each third. Contestants should read the rules very carefully and see that each provision is fully complied with, as failure to meet the conditions may debar their work. Special care should be taken to have the size of paper correct, as one ad. on paper too long or too wide would make every set inconvenient to handle, and such an ad. will be thrown out. Particular note should also be made of the date of closing, as ads. received too late can not be accepted. THE INLAND PRINTER is able to reproduce only a limited number of the ads. submitted, so that those who do not participate are missing much of the benefit to

be derived from a study of the various styles of display. There will be two hundred sets of ads., and should the number of contestants be unusually large, the sets will be given to the first two hundred who enter, so that the advisability of submitting specimens early is apparent.

NEWSPAPER CRITICISMS.— The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Lodi (Ohio) *Review.*— Never run the last line of a paragraph at the top of a column, unless it makes a full line. Such ads. as that of E. H. Gridley are very poor, as there is no contrast in the display.

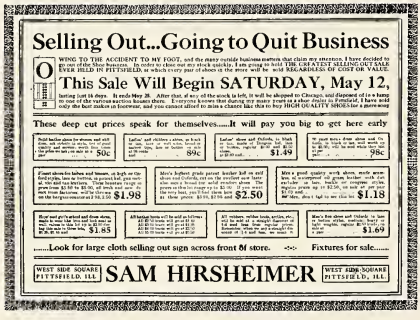
Five Mile Beach Journal, Wildwood, N. J.— Top margin is too narrow; the page should be printed nearer the top than bottom, but you have it too high. I would not use a designed heading, as plain type is much better, and in the new heading avoid a curved line.

Petroleum (Ind.) *Journal.*— You should get all the local items together under one heading and not scatter them on different pages repeating the head, "Petroleum." More care should be taken with the plate matter, getting the columns properly spaced evenly at top and bottom and between the items.

Lunenberg (N. S.) *Progress-Enterprise.*— You have made a good resolution in planning to remove the advertising from the first page. Several heads of the same size across the page do not look well; every other column should have a small head. The running of display ads. in the middle of columns of reading matter should be avoided.

Alameda (Saskatchewan) *Dispatch.*— The ads. in the issue of May 11 are much better than those published in May of last year, and the make-up of the first page is an improvement. Correspondence should have more prominent heads. The original form of the Crown Lumber Company's ad. was much better, but no one would imagine the idea you had in mind when you set that of Cook & Deyell, although it was an attractive piece of composition.

GOOD AD. COMPOSITION.— Among the ads. received this month are two from Fred C. Eskridge, of the *Pike County Republican,* Pittsfield, Illinois, which I will reproduce (Nos. 1, 2). These ads. show the effectiveness of contrast in display; the proper lines have been brought out nicely and in a manner which can not fail to attract attention. No. 1 was a full-page ad. and No. 2 occupied a quarter page, but even in the great reduction the pleasing effect



No. 1.

can be noticed. The heavy border is not an important essential to either, although it appears to good advantage on No. 2. The initial in No. 1 adds an artistic touch. A good feature, also, is the different-sized panels in this ad., but each panel should have had displayed at the top the article advertised at the special low prices. Another good ad., occupying a full page, was submitted by G. W. Cooper, of Jacksonville, Florida.

NEWS GATHERING WITH AN AUTOMOBILE.—While the automobile has undoubtedly been frequently pressed into service in gathering news, probably very few, if any, papers have a machine for this exclusive purpose, always ready at a moment's notice to go after items of great importance where any other means would fail. The Bucyrus (Ohio) *Evening Telegraph* has such a machine, and some of the "beats" secured through its use are interestingly described by F. L. Hopley of the advertising department of that paper:

"So far as I know the *Evening Telegraph* and *Weekly Journal,* of Bucyrus, Ohio, were the first newspapers in this State to give the automobile a practical test as an adjunct to the news-gathering department of a paper. These papers have always endeavored to keep abreast of the times in the matter of facilities for news gathering and it



No. 2.

was not a surprise that the automobile should be early considered. Even now but few papers recognize the importance of the automobile in news gathering, but there is no doubt of its value in the minds of the owners of these two Bucyrus papers. It was several years ago when the first car was bought, but the tires had scarcely become dust-covered in trial trips before it was called into actual service for which it was secured. Newspaper men particularly will appreciate the importance of time in getting a story in hand. From the time the first tip of big news comes into the office, until all the facts have been collected and transcribed to paper and the copy is in the hands of the typesetters, every moment is of the utmost importance. The first reporter to tap the source of information from which the best report can be had is the man most sure to get the best story. This scramble for time takes the nature, on a newspaper, of a fire department in getting to a fire. To be the first on the ground and to get the most particulars and beat back to the office with the story is a long way toward the best report, which makes the most popular paper.

"The first call upon our automobile in a reportorial capacity was an hour before press time when a report reached the office that a woman had met sudden death in

a peculiar and sensational manner five miles south of the city. There was no telephone at the place and no particulars could be had. There was only one thing to do and that was to get there as quickly as possible. Within five minutes after the first tip was received our automobile, carrying two reporters, was on its way, and within an hour the story was being put in type. This record would have been impossible without the use of the auto, and at the time of day the tip was received any detailed report of the matter would have been out of the question for that day's issue.

"Another quick tip took the auto, two reporters and a photographer seven miles from town where two aged spinsters had lain down upon the railway track and met death locked in each other's arms. The coroner had been called and the tip sent to the *Telegraph*. The reporters were on the scene long before the coroner and abundant facts for a good story were collected. From the time of leaving the office until ready to return the time was not an hour. Just as the return trip had begun a sudden storm broke and the trip was one of the most severe tests an automobile has ever been put to in this part of the State. The rain came down in torrents, the wind blew a gale and there were four miles to be covered over mud roads before a pike could be reached. Worse still there was a mile stretch where a pike was being constructed and the workmen had scraped the road down to a slimy, slippery clay. The rain was so heavy that it was impossible to see more than a car length ahead and there was only the regular protection for the carbureter and cell box. But the trip was made successfully, as most trips with a good car are. The reporters' note-books were soaked through and there was not a dry thread of clothing in the crowd. The story, however, was worth the hardships it cost, as there were sensational features and a bit of pathos which made abundant material for a human interest tale.

"On another occasion a wild man was running amuck in the northern part of the country and officials wanted a quick way of getting after the fellow and landing him in jail. A live newspaper is always looking for such opportunities, and as a consequence our reporters were with the officials in the automobile, and the man was landed behind the bars in quick time via the auto route.

"On still another occasion a bad wreck eight miles north of the city was tipped off to the papers. Our auto was soon on the way and reached the scene before the doctors arrived. A passenger train had run into a few freight cars which had been blown out of a siding on to the main track. The accident took place at a curve and was serious enough to produce good copy. On the back trip a relief train, which was returning to the city with the wounded, left the scene of the wreck at the same time as our automobile. It was a race of steam against gasoline with everything in favor of steam because of bad roads,



THE START AFTER BIG NEWS FROM THE OFFICE OF THE "TELEGRAPH" AND "JOURNAL."

and yet the automobile was standing in front of the office and part of the story was in type before the passengers on the relief train had reached the city. And this, too, in spite of bad roads and the necessity of stops for teams. The train had no stops to make, was given a clear track and was urged by the needs of haste.

"One of the best bits of news gathering the automobile ever did was on the occasion of a partial destruction of the buildings at the county fair grounds by fire. The grounds are a mile and a half from the business part of the city. Our papers had headquarters there with telephone connection. Late in the afternoon of the big day this message flashed over the wire: 'The fair buildings are on fire, notify the department.' There was a buzz indicating further particulars and then silence. The connection was gone and no means of communication was left. The department was notified and a run for the grounds made. The auto beat the fire department and was on the scene within ten minutes after the first smoke was discovered. Ten thousand people were on the grounds and in the middle of an exciting horse race an exploding gasoline tank fired the grand stand, which was almost instantly a sheet of

flame. The fire spread rapidly until half the buildings were in flames, and frantic exhibitors ripped costly displays from the exhibit halls like so much junk or damaged wall-paper. The only exit from the grand stand was cut off by flames, and people leaped upon each other in a frantic effort to escape. We had four writers at work on the fire. Copy was produced on the grounds and the automobile carried it to the office, where it was put in type. Trip after trip was made, and in less than two hours the paper was on the street with six full columns of the story, one of the best beats of a year.

"At another time the buildings at the county infirmary, seven miles from the city, caught fire. The automobile squad started a few minutes behind an electric trolley car, which carried the officials of the county bound for the fire. The newspaper auto caught and passed the car, got the story, had it written, in type and printed while all the other people at the fire were anxiously waiting at the infirmary for a return trolley car to bring them back to the city.

"These are only a few of the many occasions when the automobile proved its excellence as a part of the news-gathering department, and there are few days when it is not on the go in some capacity. We would not be without our car for a great deal, as it is one of the hardest-worked members of a very energetic staff.

"There are a number of things to consider in the selection of a machine adapted for newspaper work. Our first purchase was made largely on the recommendation of others, as we had no experience. We bought a Rambler



J. R. HOPLEY,

Manager Hopley Printing Company, Bucyrus, Ohio, publishers *Evening Telegraph* and Bucyrus *Journal*.

runabout, and though it was a stanch machine, it had insufficient power and carrying capacity for all kinds of weather and conditions. We decided to replace it with a larger car of the same make, and after a long experience with many demands for quick service, we feel that we selected wisely. We are now using what is called a Type One, and consider it especially good for newspaper work. It has a great capacity at a moderate cost, and plenty of power to negotiate any road, with ample reserve force for an extra-tough proposition. There is a seating and pulling capacity which will enable the carrying of several reporters and a photographer, with room to spare, and about all the speed that a good road makes it possible to use even though the impelling force is backed by the indomitable hustle of an aggressive newspaper. In this age of the automobile in business and pleasure the newspaper should lead. There are new victories for the paper with an auto, and an aggressive paper should not hesitate to get into the game while it still has that novelty, which will



C. R. YOUNG,

City Editor, Bucyrus (Ohio) *Telegraph*.

give the investment a double earning capacity through its advertising value and the real work which it will accomplish."

The *Telegraph* is a wide-awake daily, and the *Journal* is a weekly of similar enterprise. Photographs are shown herewith of J. R. Hopley, the manager, and C. R. Young, the city editor, of these papers, together with an illustration of the automobile ready for action.

BLEACHING CARDBOARD.

A customer, says an exchange, recently brought in a job sample that he wanted us to reproduce to a letter. We did not have the style of type used on the job, so sent the job to three photoengravers, who said they could not reproduce it, owing to the color of the cardboard, which was of a salmon tint. Then we set about to bleach the stock. Muriatic acid, diluted, will bleach many colors, but it would not touch this salmon tint. Finally we concluded to try hot-water baths, and after four immersions the card was almost snow white. We carefully dried and pressed the card, sending it to the photoengravers, who wanted to wager that it was not the same. This is a "trick" worth remembering, and will help please and hold your trade. It would have cost considerable more to set the job than the plate cost.

WE REGRET TO REPORT.

Assistant Editor—"I see here that an English general was badly cut in opening a wine bottle. What sort of a heading shall I put to it?"

Managing Editor—"O, just say 'Serious Accident to British Man of War in Attempting to Get Into Port.'"—*Tit-Bits.*

PROOFROOM

BY F. HORACE TEALL.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PUNCTUATION.— By John Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, $1.

PENS AND TYPES.— By Benjamin Drew. A book of hints and helps for those who write, print, teach or learn. Cloth, $1.25.

BIGELOW'S HANDBOOK OF PUNCTUATION gives full information regarding punctuation and other typographical matters. Cloth, 50 cents.

ENGLISH COMPOUND WORDS AND PHRASES.— By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, $2.50.

PUNCTUATION.— By F. Horace Teall. Rules have been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, $1.

COMPOUNDING OF ENGLISH WORDS.— By F. Horace Teall. When and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, $1.25.

TYPOGRAPHIC STYLEBOOK.— By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

THE ORTHOEPIST.— By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, $1.34, postpaid.

THE VERBALIST.— By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4¾ by 6½, $1.32, postpaid.

VEST-POCKET MANUAL OF PRINTING.—A full and concise explanation of all the technical points in the printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

ONE HUNDRED AND THIRTY-FIVE THOUSAND WORDS SPELLED AND PRONOUNCED.— By John H. Bechtel, author of "Handbook of Pronunciation," "Synonyms," "Slips of Speech," etc. For practical needs of busy people and for quick reference this book will be found invaluable. 614 pages; cloth, $2; leather, $2.50, postpaid.

PROOFREADING AND PUNCTUATION.— By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typefounding, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, $1.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.14.

GRAMMAR WITHOUT A MASTER.— By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who have never studied grammar at all, will find it especially suited to their needs. Cloth, 4¾ by 6½, $1.07, postpaid.

THE ART OF WRITING ENGLISH.— By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will impel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, $1.50.

VALUE OF A HYPHEN.— A hardware catalogue had an item with the name "Automatic lock tackle block." Probably the people who buy such things know what this means; but does any one else know? Attention was called to it by the fact that one man did not know, for he singled out from it the term "lock tackle." There is nothing in it about a thing called a lock tackle. Maybe many others would recognize the true meaning as well as I do. Certainly I am not alone in being able sometimes to see through a millstone when there is a hole in it. But if one person can find in a name something so very different from the thing intended, may not others do likewise? The thing named is a tackle-block with an automatic lock, and there is a way to show that unmistakably. In the form "automatic-lock tackle-block" a misreading would be simply impossible.

REPEATED WORDS.— Objection to frequent use of the same word has a natural limitation that is too often transcended in criticism. Sometimes such repetition has a strengthening effect that could be obtained in no other way. Professor J. P. Postgate, in the preface to Mrs. Cust's translation of Bréal's "Semantics," says: "This restlessness is absent in the ancient writers, to whom it never occurred to avoid a word on the sole ground that they had just made use of it." Of course this does not mean that any good writer ever encouraged a habit of useless repetition, or real tautology, of which the following is an example: "Only when a school board administrates its financial affairs along the same lines that the prosperous business firm or corporation does will the administration of the schools be most economically administered." Useful repetition is unobjectionable.

WOULD BETTER.— Samuel Johnson is said to have been the first to suggest that the idiom "had better" should be changed to "would better." At present each expression has many supporters, and opinions are uttered on both sides with extreme assurance, and without allowance for varying circumstance. One writer said, a few years ago: "No man with Anglo-Saxon instincts, or with red blood in his veins, is going to use 'would better' either in speaking or in writing. It is unhistorical, unidiomatic, and defies all logical analysis." On the contrary, the reason offered in its support is that it is grammatical — which means that it admits logical analysis — and that "had better" is ungrammatical. Professors Greenough and Kittredge, in their book "Words and their Ways," insist that "had better" is the truly grammatical expression. It is beyond question a fact that many persons with Anglo-Saxon instincts, and with red blood in their veins, do both say and write "would better," although it is equally a fact that it is unhistorical, unidiomatic, and defies logical analysis as a substitute for "had better" in the places where the latter is correct.

NONCE-WORDS.— A nonce-word is a word made for the occasion when it is used, and not likely to become established in general use. The Century Dictionary says they are numerous in English. In the Oxford English Dictionary, known also as Murray's, such words are recorded numerously, but even there the record is not exhaustive; so it may readily be seen that the subject can be considered here only in a very general way. Our reason for noting it at all is a practical one for proofreaders, many of whom think their failure to find a word in a dictionary is sufficient reason why that word should not be used. Some writers do use wrong words sometimes, and it is good for proofreaders to correct bad phraseology; but they should not forget that there is a limit to their duty and responsibility. The limit is not one that can be plainly defined, and must be left for the proofreaders themselves to determine according to circumstances. It seems well to remind them, however, that all good writers know pretty well how to use words and what words to use, and that it is not advisable for proofreaders to be too insistent in suggesting changes. The good writers, though, as a rule are more receptive of suggestion, and more willing to take all the real benefit from it, than poor ones are; but they are fully entitled to freedom of decision. When a suggestion has been clearly made and rejected, their decision should not again be questioned. A book entitled "Word-coinage," written by Leon Mead and published by

Thomas Y. Crowell & Co., is well worth a careful reading by every proofreader. Some things said in it are questionable, but in general it presents a very useful "brief study of literary style, slang, and provincialisms," besides an instructive "inquiry into recent neologisms," the quotations coming from its title-page. The second instance of what the author calls coinage is noted as follows: "Thomas Wentworth Higginson is not conscious of having produced more than one new word; that is the verb to densen. This was used in the form of the participle densening, in an essay called 'April Days,' appearing first in the *Atlantic Monthly*, April, 1861, and then reprinted in his 'Outdoor Papers' (1863), where the passage appears (p. 238): 'As the spring comes on and the densening outlines of the elm give daily a new design for a Grecian urn.' It seemed to him that there was previously no word to describe the steady filling out of the delicate outlines of an American elm in spring. He remembers writing an especial appeal to the proofreader of the *Atlantic*, who was strongly opposed to all verbal irregularities, and he [the reader] let the innovation pass. Colonel Higginson does not justify this act, nor is he inclined to think that he would now do such a thing, but it then seemed to him justifiable. He knows of no other author who has used the word, though his sentence is quoted as authority for it in the Century Dictionary." It should never have been necessary for Colonel Higginson to appeal to any proofreader for permission to use such a word, and his use of it was easily justifiable, on the ground of familiar analogy, as seen in thicken and widen. His word simply unites a well-known adjective and an equally well-known suffix of verbs, and their union into a word is just as reasonable as the expression of the same sense by a number of simple separate words would be. Mr. Mead's saying that the dictionary quotes the sentence as authority is in keeping with a common impression about such quotations in dictionaries, but it is not likely that the dictionary-makers thought of authority. The purpose of the quotation was merely to tell who used the word and how it was used. The sentence quoted, moreover, is not the one Mr. Mead cites, as one would naturally think it to be, but another printed in *Harper's* in 1884. Colonel Higginson evidently repeated his "offense," because twenty years later he wrote, "In 1800 there is some densening of the population within the old lines." This is the sentence quoted not only in the Century, but also in the Standard and by Dr. Murray. The Standard, moreover, defines the word not only for Colonel Higginson's use, but so as to admit any and every possible use, regardless of the fact that it was not found elsewhere. All of which is good support for the assertion now to be made. Familiar word-elements are at the command of any person who chooses to put them together after the fashion of established words, regardless of whether they have been so united before or not. For instance, any word like emollient may be taken as the source of one like emollience; cigarless, bottleless, furnaceless, or any possible similar word, is perfectly legitimate, whether it is given in a dictionary or not; and the mere support of analogy would be sufficient in many other cases. There was a first time for every word in this or any other language. Proofreaders are not at liberty to dictate to writers in such matters.



"WHERE THE BELLS CHIME THE ANGELUS."
San Gabriel Mission, California.

HASTY CRITICISM. — It is likely that nearly all the fault-finding criticism ever uttered is somewhat hasty and ill-considered, and it is sure that some of it is very much so. Nowhere is it easier to stray from rectitude in this respect than in criticizing language. A notable example of this was seen in looking over some numbers of the magazine *Correct English*. An agent, soliciting subscriptions, sent to the editor a letter stating reasons why a gentleman would not subscribe. It and the editor's answer to it both showed lack of consideration, and the letter of objection showed actual ignorance posing as knowledge, as ignorance so often does. The letter accused the editor of making wrong uses of words, one item being this: "'Obtains' is incorrectly used in the sentence 'Note that the following rule obtains.'" The editor in answer quoted definitions from the Century and the Standard dictionaries, and then said: "Note in this connection that 'obtain' is recorded in these dictionaries as being strictly correct. The gentleman to whom you refer has probably arrived at his conclusion from a study of Webster, not knowing that the new diction-

aries have recorded this use of 'obtain' as correct." The objector made his assertion of incorrectness from pure ignorance, probably without consulting any dictionary, and the editor answered without sufficient reading. One was only a little worse than the other. The answer certainly meant that Webster's dictionary did not record the use of the word as correct, which is not true. Webster's definition for that use is just as plain and unequivocal as any other, and the proper answer to the objection would be that the word has been correctly so used for centuries and is so recorded in all dictionaries.

WHAT KILLED THE ACCENTED LETTER.

A valued correspondent objects to the omission by newspapers of the acute accent from the "e" in the first syllable of débris, the last syllable of fiancé and the first and last syllables of résumé, as well as other accents that indicate the pronunciation of a foreign word. Attaché without the accent on the last "e" shocks him, and all the more since it would be easy, it seems to him, to use the accented vowel in the copy and in the composing-room instead of the apparently *silent* "e." The omission of the French accents from these words is attributed to carelessness, and it is thought to suggest ignorance. The effect must be, it is thought, to debase the language, since many persons get all their education from the daily press. The pronunciation of the words cited can not but be corrupted, it is believed, by the omission of their proper accents. It is merely a question, the correspondent thinks, of inducing compositors "to use the right type."

It may be conceded that a faithful reproduction of the marks used in foreign countries to distinguish the various uses of letters, vowels and consonants, is in a general way desirable and is to some small extent practicable. But it is not so simple a matter as it looks. The Mergenthaler typesetting machines used at present in all up-to-date offices are not, as a rule, equipped for the reproduction of the accented letters of foreign languages. If the accent is used, it must be supplied by hand. This would involve loss of time and might mean failure to get out the paper at the hour required to catch the outgoing mails. Even fractions of a minute are sometimes vital in the composing-room. Readers might sometimes miss getting the news, owing to the compositor's difficulty in distinguishing the French *silent* "e," for example, from the "e" having the acute accent, the grave accent or the circumflex accent. German vowels have similarly discriminating marks, to say nothing of the accents on Greek vowels and the marks of quantity of Latin vowels. To note and observe these things invariably would be possible to a scholarly compositor with plenty of time on his hands, but in the rush of work on a morning newspaper it is virtually impracticable. In point of hustle the daily newspaper has more required of it than the monthly magazine. Upon the whole, it has seemed expedient not to attempt extreme scrupulosity as respects accents, but to credit the reader with intelligence and education enough to supply them himself on occasion. As to some of the words cited, it may be held that the public is sufficiently familiar with them to pronounce them correctly without the guidance of marks.— *Baltimore Sun.*

PRESERVATIVE AGAINST RUST.

Iron may be preserved against rust by immersing it for a few minutes in a solution of blue vitriol; then in a solution of hyposulphite of soda, acidulated with chlorhydric acid. A blue-black coating is thus secured, which is not affected either by air or water.

LIGHT AND ENERGY.

Statistics showing the enormous waste of energy involved in the production of artificial light are always interesting, if for no other reason than they must continually stimulate inventors in the search for better methods. Sir James Dewar recently presented these figures before the Royal Institution of Great Britain: In an ordinary candle the total amount of energy transformed into light is only two per cent. Oil and gas lamps are not more economical. The incandescent electric lamp utilizes three per cent of the energy expended; the arc light ten per cent, and the magnesium light fifteen per cent. Then comes the glowworm and mocks us with its ninety-nine per cent of expended energy turned into light.— *The Keystone.*

STORY OF THREE BOYS.

Three boys were told to go and take the exact time by the town clock. The first came back and said: "It is twelve o'clock." He became in after life a bookseller. The second was more exact. He said it was three minutes after twelve. He became a doctor. The third looked at the clock,



D. E. CUSICK, DANVILLE, ILLINOIS, AND HIS PILE OF INLAND PRINTERS.

found out how long it took him to walk back to the house, returned to the clock, then added the time of his walk to the time shown, and reported the result thus: "It is at this moment twelve hours ten minutes and fifteen seconds." That boy came to distinction as Helmholtz, the scientist." — *Modern Women.*

ONE OF THE FAITHFUL.

Twelve years of faithful study of THE INLAND PRINTER are represented by the accompanying picture. D. E. Cusick, Danville, Illinois, attributes his success as a printer to the ideas he has received from this publication.

ELECTROTYPING AND STEREOTYPING

BY C. S. PARTRIDGE.

Correspondence relating to this department is respectfully invited from electrotypers, stereotypers and others. Individual experiences in any way pertaining to the trade are solicited. Inquiries will receive prompt attention. Differences of opinion regarding answers given by the editor will receive respectful consideration. Address, The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

REFERENCE HANDBOOK OF ELECTROTYPING AND STEREOTYPING.— By C. S. Partridge. In this work the author answers briefly the questions which arise from day to day in the practice of electrotyping and stereotyping. In the answers experience has been the teacher and practice the test of value. 134 pages. Price $2.50. The Inland Printer Company.

ELECTROTYPING.— By C. S. Partridge. Its chapters include: Historical Review — The Battery — The Dynamo — The Bath — Steel, Brass and Nickel Baths — Management of Baths — Agitation of Baths — Measuring Instruments — Preparation of Work — Molding — Building — Metalizing — The Conductors — Depositing — Casting — Finishing — Trimming and Routing — Revising — Blocking — The Invention of Electrotyping. Full cloth; 150 pages. $1.50.

STEREOTYPING.— By C. S. Partridge. This is the only book devoted exclusively to papier-maché stereotyping which has ever been published and is an exhaustive treatise of the subject, containing detailed descriptions of all the best methods of work in present use, including Cold Process, instructions for operating the Rolling Machine, Paste Recipes, Metal Formulæ, Hints for the Protection of Type, Suggestions for the Operating and Care of Machinery, Instructions for Grinding Tools, and a complete list of unexpired patents pertaining to Stereotyping Methods and Machinery, including number of patent, date of issue and name of inventor. 140 pages, 6 by 8½ inches; 50 illustrations. $1.50.

DEPOSITING SOLUTIONS.— O. O., New York city, inquires: "What is the average degree of solution for a 2½ horse-power dynamo? I am now depositing a case in four hours in 21-degree solution. What is the normal soda solution? What is the average measure of water, acid and blue-stone to make a depositing solution? Suppose we have a liter of water, how much sulphuric acid and blue-stone do we have to add to it to make a solution for 2½ horse-power dynamo? Kindly tell me what to do to make the shell of equal thickness all over, the same in the center as on the edges. Sometimes the muriatic acid does not seem to make its influence felt, and the lead does not combine with the shell. What can we do with that? Can you send us a piece of Congo paper? We do not find it here." *Answer.*— The "average degree of solution" most suitable for a 2½ horse-power dynamo is the same as is required for any other horse-power dynamo. The solution may be used somewhat richer with a high-tension current than with a low tension, but the current measured by horse-power does not signify anything; for instance, a 2½ horse-power might mean 2 volts and 900 amperes, or it might mean 10 volts and 180 amperes. The former voltage would be about right for electrotyping in series, while the latter would deposit the copper so rapidly that it would "burn." Your statement that you are now using a 21-degree solution is also of no significance, for while a 21-degree solution might be about right, it might also be entirely wrong, depending altogether on the proportions of acid and blue-stone employed. A 21-degree solution might mean 18 degrees of blue-stone and 3 degrees of acid, in which case it would be suitable for electrotyping with an agitated solution and a current of proper tension, or it might mean 14 degrees of blue-stone and 7 of acid, which would be unsuitable for any current. The depositing solution for electrotyping may vary to a considerable extent without affecting materially the quality of copper deposited, but measured by degrees it should register from 16 to 18 degrees of blue-stone and 2 to 4 degrees of acid. If the solution be agitated it will stand a larger percentage of acid than would otherwise be practicable. To make your shells of uniform thickness throughout, agitate your solution. If your backing metal does not stick to your shells it may be due, first, to the quality of your soldering acid; second, to inferior tinfoil; third, to the character of your solution, which may deposit the copper very hard, in which case it would be difficult to make the backing metal stick. In reply to your last question use litmus paper, which will answer the same purpose.

STEREOTYPING.— It is a curious fact that the popular method of duplicating printing forms in England is by stereotyping, whereas in America ninety-nine per cent of the same class of work is electrotyping. In recent conversation with a prominent English printer it developed that one reason for the unpopularity of electrotypes is their high cost and another is found in the delay in getting plates. It is probably true that electrotypes are cheaper in America, and that our methods of manufacturing are as a rule much quicker, but there is another reason which has a greater bearing on the question, and that is the superiority of English stereotypes. In America there has been little effort made to improve the quality of stereotypes, possibly because of the limited demand for them, and the bulk of our stereotyping is still done by the old papier-maché, hot-press method. There are some exceptions, for there are two or three "cold-process" methods which we employ to a limited extent, but for some reason they do not become popular. In England, on the other hand, stereotyping has been brought to a high state of efficiency and examples of work done by several different methods used in that country are difficult to distinguish from the results obtained from electrotypes. The Dalziel process perhaps ranks highest of the numerous modern methods of stereotyping, but there are several others which show extremely creditable results in the reproduction of half-tones as well as letterpress work. In all cases the improvement consists in coating the surface of the flong with a paste or cement which covers the fiber of the paper and gives a wax-like surface to the matrix. The chief objection to this process is found in the fact that such molds are not very durable and in most cases not more than one cast may be obtained. In some cases, however, it is claimed that the mold will stand several casts, and no doubt improvements will continue to be made along this line. It is quite the common practice in England to nickel-plate the stereotypes, thus improving their quality and increasing their durability. The materials used for coating the flongs are secret preparations and are sold under various names, such as: pulchre paste, ivorite, nickello, electroline paste, etc. In some cases the prepared material may be purchased from the inventors and in others a license to use the invention is sold with the paste. There would seem to be a field for stereotypes of this character in America, but it would no doubt be somewhat difficult to overcome the prejudice of American printers and convince them that any other process is "just as good" as electrotyping.

MATRICES BLISTER.— W. W. writes: "I do a little stereotyping from matrix (all flat work) sent by advertisers. Some matrices in appearance before casting are all right, but after I have done the casting the cuts are full

of dents, caused by the matrix that has blistered either by lack of pressure in making or they have been put in a damp place before sending to us. I heat the matrix and cast a dummy plate before casting. I would like to have you enlighten me in regard to this matter." *Answer.*— The defect in the matrices is no doubt due to the fact that they have become damp in shipping. Paper absorbs moisture very rapidly and drying them again will not remedy the trouble except where they can be placed back on the form and dried under pressure.

OBITUARY

WILLIAM H. PAGE.

At noon Tuesday William H. Page passed away suddenly at his home on High street, in Mystic. He had been ill but a few hours. His age was seventy-seven years. Mr. Page was born in Tilton, New Hampshire, March 14, 1829. He was the son of James Page and was one of several children. At the age of fourteen he crossed the river into Bradford, Vermont, to learn the printer's trade. He spent two years there and one at Newbury, the next town above on the river, and one year at Haverhill, on the New Hampshire side. He next went to Concord, where he was employed a while, and next to Boston, and thence to Worcester, where he worked on the *Spy* for three years. He also worked on the New York *Tribune* during the Pierce campaign in 1852, after which he came to Norwich, Connecticut, where he worked on the Norwich *Tribune* at the time when Edmund Clarence Stedman was editor of the paper. Mr. Page spent two years on that paper. He had also mastered wood engraving. In 1855 Mr. Page went to South Windham with John G. Cooley, and engaged in the manufacture of wood type. In September, 1856, in company with James Bassett he started a wood type business in South Windham, and bought the machinery of a plant in Willimantic that was owned by H. & J. Bill. In the fall of 1857 the firm wanted more room, and removed to Norwich, and located in the upper floors of a big building in Greenville occupied in part by the Mowry Axle & Machine Company. At the end of several years Mr. Bassett retired and was succeeded by Samuel Mowry. The business prospered greatly under the guidance of Mr. Page. He made wonderful improvements in the machinery, and in fact revolutionized the making of wood type. His type was of the finest grade and it went to all parts of the known world. Mr. Page made the designs for the type and borders and was a master of every detail of the same business. He turned out letters that could be printed in different colors.

Later the plant was removed to the building recently occupied by the Thames Arms Company and afterward to the building now occupied by the Page Boiler Company, on Franklin street. After making wood type for more than thirty years, with success, Mr. Page sold the business to the Hamilton Manufacturing Company, of Two Rivers, Wisconsin, and the work is still carried on there with success.

Mr. Page's talent was not confined to wood type. He painted landscapes and portraits with success, and his pictures adorn many homes. Quite a number are in his native town. He owned hothouses and cultivated fruit and flowers at one time for the pleasure it gave him. He had owned a modern milk farm on Hamilton avenue, on the East Side.

About twenty-five years ago Mr. Page became deeply interested in steam heaters and perfected several on new lines that are still in use. At one time one style was made by the Page Steam Heater Company in Greenville. Mr. Page in company with S. T. Dauchy, of New York, started the industry on Franklin street now known as the Page Boiler Company, which makes boilers Mr. Page invented.

Several years ago Mr. Page organized a company to make boilers of a new design in Plainfield. They are now being made on a royalty in the West. About two years ago he went to Mystic and was about to start a business for the manufacture of his boilers there, when his end came.

In Scotland in this State on November 20, 1855, Mr. Page was married to Catherine Elizabeth Hovey, a sister of Henry Hovey of Cliff street. Eight children were born of this union, three of whom are now living: Helen I. Page, a teacher in the schools of New London; William E. Page, of Mystic, and Louis H. Page, who lived in Mount Vernon, New York. Mr. Page leaves a sister, Mrs. William B. Hovey, in New London.

Mr. Page did not belong to any organizations. His habits were perfect and he possessed a most amiable disposition that made friends of all whom he met. He has given employment to hundreds of people and always took a fatherly interest in his help. He was generous and extremely charitable. As a general thing others than the deceased profited by his skill and talent. Still he did not complain and persevered to the end. His home life was happy. Mr. Page's many friends were surprised and grieved to hear of his sudden death, and know that the world is better on account of the example of his life.



WILLIAM H. PAGE.

The body will be brought to this city, and the funeral will take place Friday afternoon from the home of Mr. Henry Hovey at 3 o'clock.— *From "The Record," Norwich, Connecticut, May 9.*

PRESSROOM

BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.— See Process Engraving.

PRESSWORK.— By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, $1.50.

THE HARMONIZER.— By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, $3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.— By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.— Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

PRACTICAL GUIDE TO EMBOSSING.— By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.— By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

BRIGHT GLOSS RED.— B. A. B., Albert Lea, Minnesota, writes: "I am having trouble with a job in which red has to be printed on dark cover-paper. The result desired is a bright gloss red. Can you tell me how to do this?" *Answer.*— You have used the wrong grade of red ink for dark cover-stock, it being a transparent color which allows the dark stock to show through, turning the shade of red to brown. Special ink is necessary for dark colored stocks, and it should be specified when ordering inks to be run on stock of this kind. Order what is known as cover red and run it as heavy as possible. It is seldom necessary to reduce these inks, as they should be heavy in body, with very little varnish in their make-up.

A CRITICISM.— The W. C. Company, Jamestown, New York, writes: "We enclose herewith a copy of the *Aristo Eagle* for criticism. Kindly note the effects of the half-tones, also the gray appearance of same. We would like you to tell us what should be done to get better results and your frank opinion as to the trouble, whether it is the ink used, or if the fault lies in the half-tone cuts, or the finish of the paper. We do not slipsheet this job and are very anxious to avoid this if possible." *Answer.*— On carefully examining the half-tones throughout the magazine little fault can be found with the quality of the work. It is carefully and neatly done and the color is even. The book as a whole is above the average for work of this kind. By slipsheeting the job a little more color could have been carried on the half-tones, which would have improved the appearance somewhat.

NEAT SPECIMENS.— From Hurst Brothers, Stockport, England, is sent a number of neat specimens of presswork, the work of Mr. H. Gardner, pressroom foreman. Among these are several handsome specimens of three-color printing that compare favorably with the work done in America. The delicacy of the vignetting shown in most of the illustrations is also admirable in point of accuracy and toning.

PRINTING VIGNETTED CUTS.—F. B. R., Nashua, New Hampshire, writes: "We expect a job for an engine company of half-tone vignetted cuts, to be worked on a 90-pound coated book, black ink. We want to make a handsome job of it — have guaranteed to do so and are *going to* 'or bust,' as a large amount of first-class work will be ours if this job proves satisfactory, work which has heretofore gone out of the State. It is intended to work the job referred to on a four-roller cylinder press. Packing on cylinder now is three pressboards, muslin for make-ready and draw-sheet. Will you please suggest packing for best results for three to five thousand runs, and detail as to make-ready, cutting overlays, etc., and anything which may occur to you which might be of assistance to us. We have done some very creditable (so considered by many competent printers and users of printed matter) half-tone work, but our experience on vignetted work has been somewhat limited." *Answer.*— The amount of packing required for cylinder presses depends largely upon the depth the cylinder has been cut. Usually one pressboard and a sheet of manila are sufficient for the permanent packing, and about eight sheets of book paper of medium weight and a draw-sheet complete the temporary packing. At no time should the tympan extend above the cylinder bearers more than one sheet of book paper, except when running extremely heavy forms which test the strength of the press, and when extra packing is necessary it is best to place a part of the extra amount beneath the form. The make-ready on vignetted cuts is the same as when running square half-tones, except for a slight blending of the edges, which is obtained by a careful manipulation of the overlays. It is first essential that these cuts should be the correct height before starting the mark-out overlay, as any attempt to run vignetted cuts at various heights will prove disastrous. It is also important that the cuts lie firmly on the bed of the press with no rock or spring. When cuts are low, they should be brought up flat to the proper height. Quite frequently half-tones appear hollow in the center, especially vignetted cuts. In such cases a slight pyramid of folio should be made and placed between the plate and block. Do not try to get overlay effects by underlaying, and only use such material as is necessary to maintain the height desired. A three-ply cut overlay is most generally used for half-tones, both vignetted and square cuts being treated in the same manner; that is, as to detail, etc. These should be made of hard book paper, 25 by 38 — 60 pounds to the ream. In addition to the cut overlay, it is necessary of course to bring up the weak parts by means of a carefully constructed mark-up sheet. Avoid too much general impression on vignetted cuts, only placing the pressure where it is most needed. The four rollers should be adjusted properly on this class of printing. Any dipping of the rollers, if they do not revolve in the proper manner or they are set too low, will cause thick edges.

IMPRESSION SCREWS ON JOB PRESS.— H. V. C., Portland, Oregon, writes: "Is it proper to adjust the impression screws on a Gordon press for each job, or should the press be leveled and the impression screws remain untouched?" *Answer.*— When the impression screws are once set, they should remain untouched, unless an exceptionally heavy form is to be run, when they may be raised to avoid the use of too much loose packing. It is not usual, nor is it intended that the impression screws should be adjusted to suit different forms.

THE INCEPTION OF THE HALF-TONE.— W. H. M., Cleveland, Ohio, writes: "Will you kindly tell me how long the half-tone has been used successfully for commercial work? Also, how long has it been used for newspaper illustrating." *Answer.*— Meisenbach patented his process in 1882 and is generally considered the real inventor and pioneer of the practical commercial half-tone. Max Levy further improved the process by producing screens on his engraving machine. The first successful attempt to make use of half-tones for newspaper illustrations is claimed by the New York *Tribune* in 1897.

TO PRINT ON ALUMINUM.— J. H. L., Racine, Wisconsin, writes: "Can you inform us of a satisfactory way to print on aluminum? Is the make-ready the same as when running other work? Also what kind of ink is best for work of this kind?" *Answer.*— There should be little difficulty in securing a good print on aluminum from either half-tone or type matter. The make-ready is the same as for other high-grade printing. A medium strong impression is necessary to secure the best results. What is known as a fine grade of quick drying job ink, costing about $2 per pound, is most suitable for work of this nature. It is the drying quality of the ink that is necessary when printing on metal or other hard-surfaced material, as there is no absorbing power in finished metallic sheets. Allow the work to dry at least forty-eight hours before handling.

ADJUSTMENT OF THE INTERMEDIATE GEAR.— While the adjustment of the cylinder to bearers is of first importance in obtaining a perfect impression, other essential parts which it becomes the pressman's duty to regulate are the drop guides, sheet bands, grippers and the intermediate gear. The intermediate driving-gear should be set to run in close mesh with the cylinder-gear and driving-gear when the cylinder is down on the impression. To set the intermediate driving-gear, it is necessary first to remove the gear guards. Then move the press over on the impression and loosen the intermediate gear while the cylinder is down. This done, the pressman should stand in front of the gear and with both hands slide it in and out at various points on the impression. If the gear binds it should be reset. To do this, loosen the stud from the inside of the frame of the press and drive it out so that it may be turned easily, and then set the stud so that the gear can be slid off and on to the stud without binding the teeth at any point on the impression.

A FOOLOMETER.

Some visitors who were being shown over a pauper lunatic asylum inquired of their guide what method was employed to discover when the inmates were sufficiently recovered to leave.

"Well," replied he, "you see, it's this way. We have a big trough of water, and we turns on the tap. We leave it running, and tells 'em to bail out the water with pails until they've emptied the trough."

"How does that prove it?" asked one of the visitors.

"Well," said the guide, "them as ain't idiots turns off the tap."— *Harper's Weekly.*

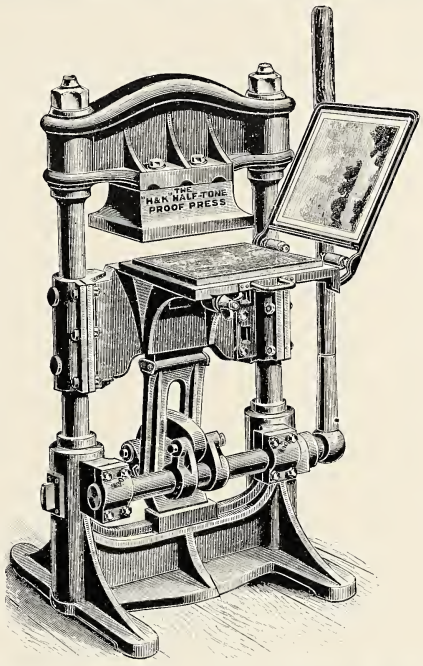
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QUESTION BOX

This department is designed to furnish information, when available, to inquirers on subjects not properly coming within the scope of the various technical departments of this magazine. The publication of these queries will undoubtedly lead to a closer understanding of conditions in the trade.

PADDING GLUE.— N. P. Co., Cincinnati, Ohio: "Can you kindly furnish us with the address of the Western Padding Glue Company?" *Answer.*— The Western Padding Glue Company is located at Quincy, Illinois.

HALF-TONE PROVING PRESS.— Edm. Gaillard, 30 Kreuzbergstrasse, Berlin, S.W. 47, asks for the address of the firm making the "H. & K." half-tone proof press shown in



the illustration herewith. Those interested will please communicate with Mr. Gaillard.

CHALK-PLATE ENGRAVING.— D. D., Greenville, Tennessee: "Can you tell us of a book on chalk-plate engraving and printing?" *Answer.*— The Hoke Engraving Plate Company, St. Louis, Missouri, can give you full information on the subject.

CARDBOARD DISPLAY STANDS.— M. C. S., Springfield, Massachusetts: "Who makes cardboard display stands, such as patent medicine people use for small articles to be attached to, the stands having a support in the back by means of which they are able to stand upright, or at an angle, and thus display the contents of the box or card?"

Answer.— The Story Finishing Company, 215 South Clinton street, Chicago.

Paper Baler.— O. P. Co., New Philadelphia, Ohio: "Can you supply us with the address of a firm making paper balers, such as might be used in baling waste paper in a printing-office?" *Answer.*— The Famous Manufacturing Company, East Chicago, Indiana, manufactures such a device.

Engraved Card Plates.— L. J. D., Thermopolis, Wyoming: "Can you furnish me with any information or books concerning printing engraved card plates?" *Answer.* —"The Art of Engraving," price $1.50, contains information on this subject and is for sale by The Inland Printer Company.

Classified Lists.— T. A. & V. E. M. Co., Jackson Center, Ohio: "Can you furnish us with a list of the job-printing offices and publishers (not the small newspaper offices)?" *Answer.*— Boyd's City Dispatch, 16 Beekman street, New York city, is prepared to furnish classified lists of any kind.

Transparent Sheet Celluloid.— F. R. M., Atchison, Kansas: "Can you inform me where I can obtain transparent celluloid in sheets for manufacturing hotel menu cardholders, etc.?" *Answer.*— The Celluloid Company, Newark, New Jersey, or B. F. Blodgett & Co., Leominster, Massachusetts.

Wooden Handles for Fans.— C. H. T., Topeka, Kansas: "Please inform me where I can purchase the wooden handles that are used on cardboard advertising fans." *Answer.*— North-Western Novelty Company, Geneva, Illinois, or American Manufacturing Concern, Jamestown, New York, can supply you.

Stereoscopic Views.— N. L. R., Loudonville, Ohio: "Can you give me the address of some firm that makes cheap stereoscopic views? I want to use them for advertising purposes. I am informed they can be had for from 45 to 60 cents per hundred." *Answer.*— The Metropolitan Syndicate Press, Chicago, Illinois, can supply you.

Cold Padding Glue.—J. W. G., Indianapolis, Indiana: "Will you kindly give me the address of a manufacturer of a padding glue that is made for application without the necessity of heating?" *Answer.*— The Arabol Manufacturing Company, 100 William street, New York, and The Collodin Manufacturing Company, 100 William street, New York, manufacture these goods, as well as all kinds of gums and sizes.

Decalcomanias.— C. P., Hampton, Virginia: "Under heading 'Specialty Printing,' page 854 of March issue, the subject of 'Decalcomania' is explained. I am interested in this line of goods and would esteem it a favor if you will kindly furnish me the addresses of manufacturers." *Answer.*— The Meyercord Company, Chicago, manufactures decalcomania transfers and will be able to give you full information on the subject.

Advertising Fans and Novelties.— W. B., Gibson City, Illinois: "Will you please give us the names and addresses of dealers in advertising fans and novelties for the trade?" *Answer.*— The Crescent Embossing Company, Plainfield, New Jersey, manufactures advertising fans, and the North-Western Novelty Company, Geneva, Illinois, and the American Manufacturing Concern, Jamestown, New York, can supply you with advertising novelties of any kind.

Duplicate Form Counter Salesbooks and Carbonized Paper.— H. S. L. & Co., Albuquerque, New Mexico: "Can you give us the address of the printing firms who make a specialty of manufacturing counter salesbooks made in duplicate form, which are being used in all retail stores? We would also like to know where we can get carbonized paper like sample enclosed." *Answer.*— The Chicago Sales Book Company, 16 North Desplaines street, Chicago, manufactures salesbooks of all kinds, and the General Manifold Company, eighth floor, Railway Exchange building, Chicago, can supply you with carbonized paper.

Imitation Typewriter Letters.— L. & A., Philadelphia, Pennsylvania: "Will you please inform us where we can buy a process for printing typewriter letters so that when names are filled in on the machine they will match the body of printed letter; or where we can buy a reliable ink and ribbon outfit that will match? If your firm publishes any book on the subject please send us literature and price so we can get it." *Answer.*— The Inland Printer for September, 1905, on page 828, contained an article on this subject. M. M. Rothschild, 96 Fifth avenue, Chicago, or the Neidich Process Company, Burlington, New Jersey, can supply you.

"Roughing."— E. C. A., Leadville, Colorado: "Some time ago I saw in The Inland Printer how 'roughing' was done after printing, etc., but I do not recollect whether it said a special machine was necessary or not, or that it could be done on an ordinary press with sandpaper. Kindly enlighten me." *Answer.*— Roughing may be done on an ordinary press by using sandpaper mounted on a block. However, a perfect result can only be obtained by having the stock run through a special roughing machine. The Henry O. Shepard Company is prepared to do work of this nature and will quote you prices upon receipt of inquiry.

Formula for Chalk Plates.—A. W. B., Portland, Oregon: "Will you kindly give me the formula you published at one time for the manufacture of chalk-plate engravings?" *Answer.*— Dissolve pure gum arabic in warm water until it is the consistency of mucilage. To every teacupful of precipitated chalk add one teaspoonful of the gum arabic solution. Add water and stir until the whole becomes a thin emulsion. Remove the rust from the base plates with emery paper. Blue these plates on a hot fire and while the plates are still warm pour on the chalk emulsion. Bake slowly in an oven until the water is all evaporated. The upper crust will crack and can be peeled off, when the chalk surface can be scraped smooth. If the coating proves too hard, there is too little chalk. If too soft, there is not enough mucilage.

Paper.— N. S. C., Richmond, Virginia: "Can you give me any information in regard to the meaning of S. C. and S. & S. C. m. f. coated and plate paper? Have you any book explaining the kinds and sizes of paper and how to tell them?" *Answer.*— S. C. means "sized and calendered," and S. & S. C. means "sized and supercalendered," referring to the finish of paper. Supercalendered paper has a smoother finish than plain calendered paper. You can only tell the kinds of paper by experience in handling it. There are so many kinds and sizes of paper and so many manufacturers that it would be impossible to obtain a book containing the information you seek. You can only obtain the desired information by writing to a number of paper manufacturers concerning their special output. The J. W. Butler Paper Company publishes a book on the subject called "The Story of Paper Making."

Ready-print Magazines.— In answering a query to this department in the May number as to those who put out ready-print magazines, the name of the Associated Press was given instead of the American Press Association. A letter of protest from the Associated Press reveals the result-bringing value of The Inland Printer columns:

"In your May issue, on page 265, in answer to a correspondent, you say that 'the Associated Press can give information as to ready-print short story magazines.' You have evidently confused the Associated Press with the American Press Association, or some kindred organization, as we certainly know nothing about furnishing matter for ready-print magazines. As a result, we have received a large number of inquiries and it has caused us some inconvenience. Will you kindly see that the matter is corrected in your next issue." In this connection, we note that the Brooks Publishing Company, St. Louis, Missouri, makes a specialty of ready-print magazines.

SHORT-WEIGHT PAPER.— W. A. P., Jersey City, New Jersey: "Will you give me a little information regarding paper? For instance: I order fifty reams of cover-paper, 20 by 25 — 35 pounds, and the paper house bills it up 1,750 pounds at 6 cents. When the paper reaches me a number of the reams are weighed and I find they only average about thirty-two pounds each, yet I must pay for thirty-five-pound stock. I recently had occasion to order one hundred reams of twenty-pound folio and apparently every ream was from one-half to one pound short in weight. I have had similar experience with book papers, invariably finding them under weight. What I would like to know is who makes the extra profit, the paper mill or the paper house." *Answer.*— It is an old established rule in plain covers that they should run from one to three pounds under the nominal weight, and the selling prices are based on this rule. If sold at actual weight, the price per pound would be higher, and paperdealers make no secret of this custom. In other than plain covers, the rule is to run them full weight, which means that at times they will overrun slightly in weight and at times slightly under, for, as you are probably aware, it is impossible to run paper exact in this respect.



Example of commercial illustration submitted by Charles Helme Loomis, Advertising Manager, The Liquid Carbonic Company.

VERSES ON MECHANISMS.

Rudyard Kipling proved by "McPherson's Hymn" that out of so prosaic a theme as a steam engine good poetry could be inspired. The Linotype, also, has been the theme of poets, and one of the latest metrical descriptions of its wonders comes from the Southern Publishing Association of Nashville, Tennessee. The bard, an apprentice in the Linotype department, "handles his feet," as an Irish friend says, on the model of Mr. Silas Wegg, and also does a little fudging in diction to make things fit, but here is his effort, "by request":

THE LINOTYPE SOLILOQUY.

Quietly sitting in his easy chair,
Scanning the "copy" before him there,
Working the keyboard with rapid pace,
Reclines the operator with happy face.

Watch the matrices as they fall,
Hurry, skurry, one and all;
Dropping swiftly, one by one,
Chasing each other as they run.

Down into the assembler-box below,
Then up to the transfer slide they go.
Into the first elevator they jump,
Held in check by the compressed air pump.

Downward, downward, into the vise,
And then are adjusted just so nice;
And while they're held tightly in their places
The pot comes forward and burns their faces.

Then three-fourths of a turn the disk goes round
Until a certain place it's found,
Then comes forth a "slug" quite hot
Which was so recently in the melting pot.

This thing that holds the "slugs" in front,
By the way, is a "stick" in a way not blunt;
When this "stick" gets full of these "slugs" so queer,
They are emptied on the table behind you here.

When the "cast" is made in the molding-room
A rising position the "mats." assume;
Until the very top they reach,
Then are transferred across the breach.

And then an arm so long, so grand,
Receives the "mats." in its groovy hand;
(Another small arm comes out apace
And carries the spacebands back in place.)

Now then begins their rapid flight;
This time they reach a dizzy height,
But they don't mind as they go,
Because they're nearing home you know.

Now into the distribution-box they race,
And up to the "sentry" with eager face;
Each ready to give the "countersign,"
For without it they can't pass that line.

A scene most cruel is next in line,
As on the rod they cling like a vine,
Hanging by their ears, a thing so mean,
'Til they drop into the magazine.

BEST IN THE COUNTRY.

Enclosed you will find postoffice money order for $3 for another year's subscription to the best printer's journal in the country. Success to you and the noble art you are trying to uplift.— *John Bertelson, LaMoure, North Dakota.*

QUALIFIED HIM FOR A POSITION.

THE INLAND PRINTER is the only magazine that helped me to qualify myself for the position I now hold in this office. Success to you.— *E. E. Brockmann, Steger, Illinois.*

THE ARTISTIC ELEMENT IN MASKING PHOTOGRAPHIC PRINTS.



N order to demonstrate what a remarkable effect the form and area of a mask have on the visual impression, it will only be necessary to compare the photographic views shown.

Fig. 1 is a full plate print, of square shape, which has a good balance between the different distances of the subject, and the masses as to area are also well selected. Fig. 2 shows a narrow and long elliptical mask, placed horizontally, that accentuates the declivity of the hill in the background, throws the clump of trees on the right into prominence and subdues the restless water of the foreground. The entire scene is pervaded with a sense of stately calmness.

Fig. 3 shows a larger ellipse placed vertically. This accentuates the foreground, removes the side mass of Fig. 2 and throws the tall trees into a spectral weirdness that is entirely absent in Fig. 1 or Fig. 2.

Fig. 4 is a shorter and wider ellipse, also placed vertically. The contrast between this and Fig. 3 is quite pronounced, because the length of all the vertical elements of the subject, notably the trees, bears a reduced relation to the length of the ellipse. There is also a certain feeling of repose not seen in any of the other views.

Fig. 5 is made with an elliptical mask having its greatest length parallel to Figs. 3 and 4. This ellipse is shorter than Fig. 4 and its width is reduced considerably more than the relative reduction of their lengths, consequently the spectral coldness, reinforcing the snowy hillsides, is increased and the loss of a considerable part of the foreground produces the impression that the subject as a whole is not of such an elevation as is Fig. 3.

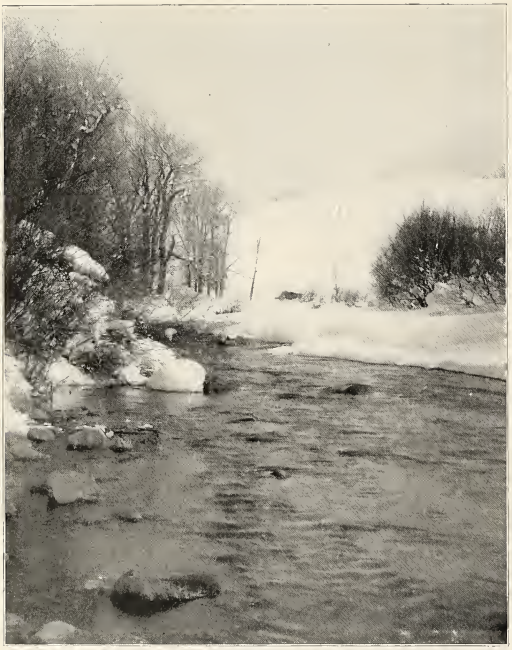


Fig. 1.

Fig. 6 is an oval of similar dimension to Fig. 4, but in the last figure it is placed horizontally. This disposition reduces the foreground, accentuates the shaded mass on the right in contrast to Fig. 2 and startlingly reduces the distance to the hill crest of the background, thus controlling not only the balancing of the masses but modifying the effects of "distance."

The proper balancing of the light and shade masses in relation to the mask areas bears an important relation to



Fig. 2.

the artistic feeling of the reproduction, and the placing of elongated masks, either vertically or horizontally, modifies the sense of height of the vertical elements, while the roundness has much to do in softening angularities of the composition.

A GERMAN VIEW OF OUR APPRENTICESHIP SYSTEM.

In a recent report to this Government, United States Consular Clerk Murphy, of Frankfort, Germany, writes as follows:

"As the opinion of a competent and disinterested foreign expert is always of interest, the following condensation of a lecture recently delivered before the Technical Club in Frankfort by Director Back, of the Frankfort Industrial School, may prove suggestive and of practical value. Mr. Back was one of the commissioners sent by the German Government last summer to visit the St. Louis Exposition and to gather material for a report concerning industrial conditions in the United States. According to Director Back, the subject of training industrial and technical apprentices does not receive in the United States the same general and widespread attention as in Germany:

"In America a young man has much less opportunity than in Germany to learn in a practical way all the details of a trade, and thus to become a skilled workman in a thorough sense of the term. This is largely due to a difference of systems, the general tendency in the United States being to reduce prices by almost entirely substituting machinery for hand work, by using a limited number of designs, and by manufacturing in immense quantities. Consequently a workman usually becomes familiar with only one of the many details of manufacture and seldom has an opportunity to follow an article through all the different processes required for its completion. Moreover, there is little occasion for hand work except in connection with repairs.

"Nevertheless it is always necessary to have a few trained workmen to attend to the final adjustment of parts and to put the finishing touches to a completed product. The scarcity of such skilled workmen is now being complained of more and more in the United States.



Fig. 3.

"Most owners of small establishments which still employ hand workers, especially those in the large cities, are unwilling to take the trouble and assume the responsibilty of training apprentices. This training is done, if at all, principally in small towns or in the country. Consequently the United States is now unable to supply its own demand for skilled laborers, the best trained men being largely immigrants from Europe, and especially from Germany.

"As this scarcity is at last being recognized as a weak point in the industrial development of the United States, efforts of various kinds are now being made to provide means for increasing the number of apprentices and for instructing them and other young men in a manner which will prove later on advantageous both to them and to the manufacturing interests of the country. A well-known firm in Philadelphia, for instance, now accepts three classes of apprentices, who are paid according to the quality of their preparatory education, and who, after they have been systematically and thoroughly trained, are given regular and profitable employment. There have been established also, especially in the Eastern States, a number of good industrial schools, where young people of both sexes are instructed in various kinds of useful hand work."



Fig. 4.

TECHNICAL SCHOOL FOR ITALIAN PRINTERS.

The Turin Typographical School was founded about three years ago, and to-day is an assured success, writes a correspondent of the *Master Printer* (Philadelphia). It is truly remarkable that in the first two years nine-tenths of the pupils have presented themselves for examination. This splendid result is mainly due to the intelligence of the management, and also to the teachers, who, with singular success, have inspired the scholars with affection for the school and love for study. This emulation among the scholars has been a powerful incentive, by which great results have been obtained.



Fig. 5.

For the student compositors the management has had compiled and published a little manual of grammar specially intended to furnish them with the most indispensable notions of literary correctness. It is divided into three parts, dealing with orthography, and treating of the correct presentation of words by graphic signs, according to their etymology, and dealing also with punctuation; the text part is grammar properly so called, and the formation of the Italian language; and the third part closes with an appendix formed of the alphabet of the Greek language, signs of punctuation, accents, etc., and shows the young typographer how to acquire the graphic forms of the Greek alphabet and to read quickly the words.

This interesting little manual, printed in the office of the school, forms an excellent example of good composition and clear working, and is dedicated to the Italian Professional Schools.



Fig. 6.

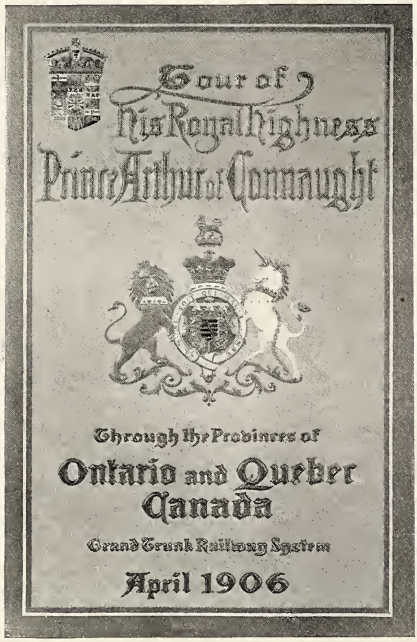
THE aspirations of the mind are the mold of character.

PRINTER'S ADVERTISING

"SOME OF OUR FACES," a booklet issued by the Dry Goods Reporter Press, Chicago, shows in an attractive manner the type at the disposal of their advertisers. The booklet is printed in black and red, and each page is set in a different series.

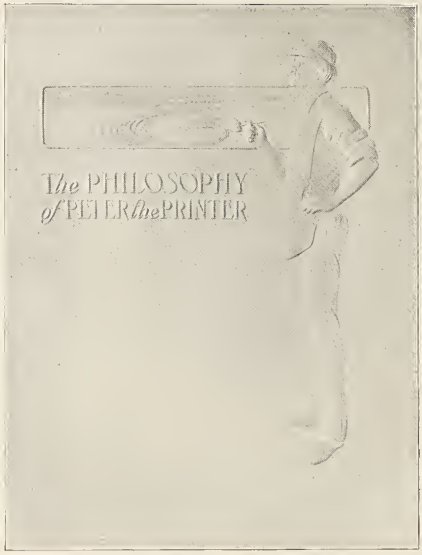
THE advertising literature of Corday & Gross, Cleveland, Ohio, always attracts attention. This time it is a booklet entitled "Interesting," and the appearance and text uphold the name in every sense of the word. The following quotation sums up the argument: "Every dollar you put into making a piece of printing must carry something for brains."

THE Grand Trunk Railway System probably has issued the most sumptuous, tasteful and complete souvenir timetables and descriptive brochures of any of the many admirable productions of late years in the way of railway



literature. The tour of Prince Arthur of Connaught through the provinces of Ontario and Quebec in April was the occasion which produced one of these souvenirs of the itinerary. The cover is lithographed on a rich-toned paper in gold, blue and red, the design being the British arms, the text of the book is printed in a strong sepia on toned paper, and the many illustrations are exquisitely done in color. The cover-design is reproduced, showing the general design.

ONE of the most artistic specimens of printers' advertising of recent issue is a booklet from the Griffith-Stillings Press, Boston, Massachusetts. It is entitled "The Philosophy of Peter the Printer," and deals in an entertaining manner with the reasons why Peter lost the town printing. The cover, a reproduction of which is shown herewith, is printed in a very delicate blue tint on white stock, and embossed. The body of the booklet is printed on white



wove deckle-edge Advertisers' Text, every other two pages being blank, with the heads uncut. The frontispiece is in two printings from a wash-drawing and the text is illustrated with etchings from pen drawings. The whole is beautifully printed in delicate colors and forms a handsome piece of advertising literature.

A COPY of *Wezätas*, the house organ of Wald. Zachrissons, Gothenburg, Sweden, shows interesting typography and specimens of careful letterpress printing and lithography.

A UNIQUE bit of advertising is used by the Pirsch Press, Dayton, Ohio, in the shape of a "morning prayer," which is accompanied by an illustration and printed in text in black, red and green on salmon-tinted stock, the whole being mounted on a sheet of cover-paper.

THE March issue of "Crocker Quality," published by H. S. Crocker Company, San Francisco, California, is an artistic piece of advertising literature. This number, which completes the first year of publication, is decorated, in accordance with the month, with shamrocks, a border of these encircling each page, with a handsome design on the cover. The booklet, as the decoration suggests, is printed in black and green on India tint stock. As proof of the pulling quality of this kind of publicity the announcement is made that the booklet will be continued monthly.

UNIQUE and original is a mailing device used by August Petrtyl & Co., Chicago, a reproduction of which is shown. The original is printed in green, gray, yellow and black on India tint stock. At the bottom is attached a private post-card, which is separated from the design by a perforating rule.



THE following is from a unique folder issued by Marquam & Co., Decatur, Illinois: "Do you know that good printing conveys an idea of success? We may never see the man himself. It's his letter-head, his business card, his circular or his catalogue. We size the man up by that. You wouldn't say a man was successful if he sent you a business letter on wrapping paper — now would you? How do you suppose your correspondents are impressed by your stationery? We have been successful because we have given a style and distinction to our printing that the ordinary man didn't have the talent or inclination to give. We have cut out for ourselves an individuality — a style. You have the same thing; you have individuality. It sticks out; when a person hears something you have said, he says: 'That sounds like Brown.' It's the same way with your printing. Does it impress with a distinction, a style? If not, interview the Marquam Press." The folder contains well-printed samples of commercial stationery on various grades of paper, with the prices for each grade. It is an attractive advertisement.

A POPULAR field for the development of ideas is the one covered by the announcement of early closing on Saturdays. This is not confined as an advertisement for printers to



the announcements which they themselves use, many firms giving these signs to customers with their imprint thereon. A unique specimen of this sort is shown herewith, being the announcement of Schwebke & Knerr, New York. The original is printed in black, brown and blue on cream-colored stock, and presents an attractive appearance.

A COMFORTABLE PROPOSITION.

I would not be without your magazine for a month any more than I would be without an overcoat in zero weather. It is O. K.—*A. E. Gibson, Dorchester, Massachusetts.*

BOOK REVIEW

"WITH NATURE IN COLORADO," a very attractive pamphlet, is the first of the season's offerings describing and picturing the beauties of mountainous Colorado. It is being distributed by the passenger department of the Denver & Rio Grande Railroad.

FUNK & WAGNALLS COMPANY, New York and London, have issued another of Miss Holley's popular books: "Samantha vs. Josiah," the story of a borrowed automobile and what came of it. 12mo, cloth, 400 pages. Comic illustrations by Bart Haley. $1.50.

"THE PHANTOM OF THE POLES," by William S. Reed, published by the Walter S. Rockey Company, New York, has for its purpose an attempt to prove that there are no poles either north or south, but holes — for the earth is hollow, containing oceans, vast continents, mountains, rivers and vegetation. The work is freely illustrated and its price is $1.50.

FROM Samuel D. Williams, secretary of the Chamber of Commerce, incorporated, of Newport, England, we have received the "Newport Year Book," the compilation of the secretary, and printed by the Williams Press, Limited, Newport-on-Usk. As a compilation the work shows evidence of thoroughness. The numerous maps and illustrations of the varied resources of Newport atone somewhat for the antiquated typography and jumbled appearance of the work, due largely to the vast amount of advertising matter.

"THE SELLING MAGAZINE."— Mr. Emerson P. Harris, with the month of May, issues No. 1, Volume 1, of the *Selling Magazine*, devoted to the marketing of machinery, tools, equipment and supplies. The publisher states that the *Selling Magazine* represents the first organized and systematic effort to do for the sales and publicity forces of machinery, tool, equipment and supply houses what the best trade and technical journals are doing for the manufacturing departments of such concerns, in order that the methods of the former may be reduced to something like the scientific economical basis of the latter. The *Selling Magazine* will deal largely with facts and figures — costs and results — and will present each month the best available information as to the selling methods of successful houses in the lines it appeals to. The price is $1 a year, single copies 10 cents. The magazine is very neatly produced, full of interesting matter, and has a good advertising patronage in the initial number. Address Postal Telegraph building, New York.

SIGMUND GOTTLIEB'S "PRACTICAL TREATISE ON PHOTOGRAVURE."—Wilhelm Knapp of Halle a-Salle, Germany, publishes this work as the fifty-third volume of his exhaustive treatise, the "Encyclopedia of Photography." There are fifty-five pages of text and twelve illustrations. After giving a brief résumé of the advantages of photogravure or "Heliogravure," in its relation to tonal interpretation, the author treats, in a very comprehensive manner, of the practical and theoretical difficulties that are involved in operating the process. He successively considers the negative; retouching the negative; the positive; carbon tissue; sensitizing, printing and developing the image; dusting the ground on the copper plate; the etching; first proofs and

methods of retouching the plates; how to polish, engrave, scrape, burnish and roulette the plates. The method of steel facing of copper plates is described in detail, as to voltage, amperes, etc., and the composition of the electrolyte. The best method of printing, as to style of press, manner of placing the plates on the press, inks, paper, and the proper conditions of paper moisture, etc., are successively treated of. The volume ends by describing the use of photogravure plates on power presses and the adaptability of the process to combination effects through multiple impressions, with chromolithography, as well as the possibility of doing three-color work by this method. The book, 5½ by 8½, in paper covers, written in German. Price, $1. The Inland Printer Company, Chicago.

"Chromolithography," published by Wilhelm Knapp, of Halle a-Salle, Germany. This eminently practical handbook, published in serial form, has now reached its seventh number. The text is illustrated with examples of various classes of work, including three-color and other up-to-date processes. The series is to be completed in ten numbers at $1 each. The entire lithographic art is the gainer by reason of the thorough exposition found in pages of the succeeding numbers, and individual workers will find the detailed treatise of the various stages of chromolithography of very great practical value. The adaptation of three-color principles to lithography is described at length; shading mediums, various kinds of grain, stipple, etc., are given prominence. Number 4 contains a beautiful three-color reproduction from an oil painting, original by "der Böhm. Graph. Aktien-Gesellschaft unie" of Prague. Number 5 specially treats of the interrelation of chromo and photo lithography, showing various examples of half-tone line drawing and the interference or moire effects of the screens when multiple plates and impressions are used, also the best forms of dot position to avoid "pattern" effects. Chromolithography and its coördination with collotypy is also mentioned in this number, and inserts of Doctor Albert's tri-color reproductions made on this basis are given. Number 6 treats of the methods involved in the combined use of photogravure and chromolithography. In this number the first chapter of an exhaustive treatise is given, relating to the usual materials, etc., used in litho-color printing — the chemicals, papers, inks, bronzes, bronzing machines, presses, etc. A beautiful collotype insert is shown by J. Löwy of Vienna. An insert showing a chromolitho reproduction in still life of a vase of cosmos and some partially peeled lemons, in stipple grain, by Meissuer & Buch, of Leipzig, sets a pace that three-color workers will have much to do to equal. Number 7 contains a treatise on the proper methods of preparing the litho stone, of preserving register, etc., also of reversing methods in their relation to multiple images, and the translation of white line into black line, etc., as well as the manner of enlarging and reducing by the usual devices. A "Photo-Algraphie," in half-tone screen insert shows, under a delicate tint, very good tone renderings. It is by Jos. Scholz, of Mainz. A second insert reproduced from a crayon sketch is quite effective. It is also by Mr. Scholz. The entire set will be a desirable acquisition to any one interested in either the practical or theoretical phases of the graphic arts. May be obtained through The Inland Printer Company, Chicago.

"The Battles of Labor" (George W. Jacobs & Co., Philadelphia, Pennsylvania, price $1) on the back of a modest cloth-bound volume suggests a flood of appeals to sentiment, many tugs at the heartstrings, and particular stress being laid on extenuating circumstances which seem to justify excesses. But the book before us is not at all like the outgivings of the subscription-book publishers who produce a history every time there is a labor war which brings into prominence a "leader" who may be wheedled or seduced into allowing his name to be used as the author of a book with an inflammatory title about the world-old and never-ending strife of labor. This work is nothing of the kind. It is composed of four lectures delivered before the students of the Philadelphia Divinity School by "Carroll D. Wright, Ph.D., LL.D., former United States Commissioner of Labor, President of Clark College," and the author of several books on industrialism, to quote the title-page. The experience and temper of the author, as well as the character of his audience, are a guarantee of the reliability and freedom from "yellowness" of the lectures, and invitations to all desiring reliable information on a subject of ever-increasing interest. "The Background" is the title Doctor Wright gives his first lecture, and in it he covers the early struggles of the workers, vowing that the historians of antiquity have been negligent of labor and unfair when they spoke of it, because they were imbued with the idea that laborers were mere animals without souls and therefore deserving of no more attention than beasts of burden. Though cultured people no longer assume such a pose, there are many nowadays who — consciously or unconsciously — apparently act on that theory, and, in fact, it is openly expressed by not a few when they are defining the status of the negro. According to the author, trade unions are of great age and flourished in pagan countries, though "paganism ignored what we call the proletariat." The departure of the Hebrews from Egypt is seriously set down as a "great strike, having in it more of the elements of our modern battles of labor than most of those of ancient times," and there is sketched the long-continued agitation, the petitioning and appeals to modify the severe stints, which were ignored, all terminating in the appearance of the walking delegates Moses and Aaron, who resorted to mild boycotts and finally ordered the historic walkout of probably a million souls, whom the Egyptians vowed a turbulent crew they were glad to be rid of, but whom they tried to retain by all the arts in their power. Then we are treated to a glimpse of the bloody wars waged by labor and the wonderful influence of the unions until the advent of Jesus Christ. "The great master was himself of them," Doctor Wright tells the divinity students. "His youth was spent among them, and there are writers who do not hesitate to assert that He worked through labor organizations to bring the kingdom on earth. There is no positive evidence of this, but the analogies of His preaching and the tenets of the labor unions of His time surely indicate such a similarity that it is not a very great stretch of the imagination which leads to the conclusion that if not of them, He was with them in spirit and in action. He loved these working people beyond all others. * * * He drew His disciples from them and recognized their needs as expressed in their struggles and aspirations." Among the most powerful of the unions at the beginning of the Christian era were those of the image-makers, and for purely economic reasons, they opposed Christianity because it had no place for idols. But the workers, like their fellows everywhere and in all ages, anxiously willing to accept any proposition looking to greater equality and better conditions, took to their hearts the new religion. Doctor Wright is a professing Christian and a leading light in his denomination, so he appears to be in an excellent position to give pertinent advice to those churchmen who are pondering on why the masses are estranged from the Church. Not less interesting to the average man is Chapter II — "In Medieval and Modern Industry" — which gives an inkling

of the power of unions in the Middle Ages, the Wat Tyler rebellion — strike we would call it now — the influence labor agitation had in bringing about the Reformation, and early strikes in this country. The unions here labored under great legal burdens born of the English common law, but there were strikes for the ten-hour day, and men paraded under banners declaring that "From six to six" was their idea of a working day. This chapter concludes with statistics concerning American labor troubles down to 1880 and a presumably reliable sketch of the great railroad strike of 1877. Chapter III, "Great Modern Battles," is a résumé of the more important strikes since 1880, concerning which Doctor Wright is so well qualified to speak, it coming within the scope of his official duties to be informed as to their causes and effects. It is in the next and last chapter, "How Battles of Labor are Treated," that he makes deductions from historical research and his experience. From this well of information Doctor Wright draws words of wisdom for present-day industrialists.



SAN GABRIEL MISSION, CALIFORNIA.

The Doctor has, according to his critics, played many parts with much facility. He has been hailed with loud acclaim as the spokesman of labor, and denounced as its betrayer; the employer points to him as an all-sufficient justification for his (the employer's) position, and at the same meeting deplores the dissemination of such sentimentalism as Wright preaches. To those who have never regarded him as dishonest, all this blowing hot and cold tends to prove his honesty of purpose, adding much weight to his advice. He is not opposed to "government by injunction," against which the unions inveigh so fiercely, yet he believes the socialistic agitation is a distinct benefit to the people, because its trenchant criticism is bringing us to a realization of the faults and follies of the present system. The practical suggestions of such an acute observer and so broad-minded a man are worthy of more than the usual amount of consideration. Of all the talked-of amelioratives he pins his faith to the methods of conciliation and arbitration and shows conclusively that those who reject or spurn that method are not only standing in their own light, but promoting inexcusable waste and retarding the progress of the race. Those interested in the great question of the day should have the book on their shelves. Those who are not interested particularly ought to read it, for it not only sketches history, but depicts clearly the trend of events.

I AM a subscriber and constant reader of your valuable publication and have received many valuable lessons from its pages.— *L. B. Springsteen, Philadelphia, New York.*

TRADE NOTES

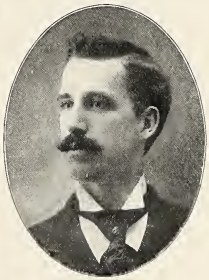
THE Harris Automatic Press Company announces the appointment of Clarence W. Dickinson as Western sales agent, with offices at 317 Dearborn street, Chicago.

J. WILSON RAY, in charge of the printing machinery and supply departments of the Charles Beck Paper Company, Ltd., Philadelphia, Pennsylvania, is leaving for a visit to England and Scotland, making Glasgow, his native city, his first stopping place. Mr. Ray will return to the Quaker City about the middle of August.

THE Duplex Printing Press Company, in order to care for its extraordinary increase of business, has added seventy per cent of space to its capacious plant in Battle Creek. A magnificent suite of offices is also being added and many of the latest achievements in labor-saving automatic machines have been ordered for use in the enlarged plant.

MR. JOHN W. MARDER, who for the past seven years has been a resident of Palmyra, New York, where he has been engaged in the manufacture of the Cranston printing press, on May 1 became the owner of the property of the Peerless press works of that city, and has consolidated the two businesses. The Peerless company turns out six sizes of job presses and the Peerless Gem paper-cutter. The industry is one of the largest in Palmyra, and Cranston presses and Peerless jobbers and paper-cutters are shipped all over the civilized world. The consolidation will assist materially in the development of the business of both old concerns.

MR. ARTHUR WILSON is well known to thousands of persons connected with the printing art. As the representative of the Duplex Printing Press Company he has traveled in all parts of the world during the past fifteen years. Of late years Mr. Wilson has been Western representative for his company. Occasionally he has found time to send very interesting matter for publication in THE INLAND PRINTER. During the coming summer Mr. Wilson and his wife intend to travel in England and Scotland. They will avoid railways and other means of conveyance excepting feet and limbs. Walking from place to place, it is expected they will learn much of the rural life of those countries. Mr. Wilson has promised to send THE INLAND PRINTER any information or photos of general interest to printers and no doubt he will find many such. He traveled to Capetown, South Africa, in 1896; to Manila, P. I., in 1902, on which trip he made a tour of the world, and to the Port of Spain, Trinidad, in 1903. Mr. Wilson has erected presses in nearly every State and territory and in most of the Canadian provinces. He started in the business as a printer's devil twenty years ago in Cincinnati and has helped considerably in bringing flat-bed perfecting presses to their high degree of proficiency.



ARTHUR WILSON.

SPECIMENS

Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

NOLAN BROS., Brooklyn, New York.— The card submitted is neat and shows a good use of color.

EDWIN I. BAER, Canton, Ohio.— The specimen submitted is neat and well printed, presenting an attractive hanger.

SPECIMENS from F. A. Wolfe, Augusta, Georgia, are original in design and show a discriminating use of color and ornamentation.

SPECIMENS from Charles B. Kline, with Lewis C. Le Naire & Co., New York, contain interesting type designs and are very creditable.

SPECIMENS from Samuel F. Kerr, Pittsburg, Pennsylvania, are neat in design, and the presswork and use of color show careful consideration.

NEAT, modest typographical design and a good use of color are features of the commercial specimens from Hal Osgood, Bradford, Pennsylvania.

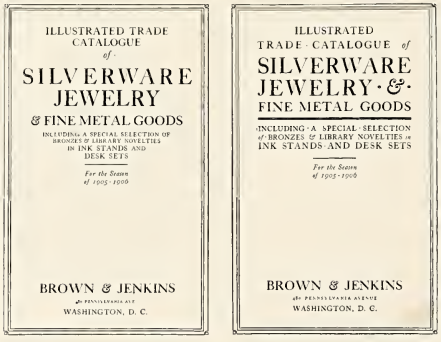
GEORGE C. L. SNYDER, Wrangell, Alaska.— Your letter-head would look better in smaller sizes of type. Avoid letter-spacing text as much as possible.

ARTISTIC type designs, good presswork and a careful use of color are characteristic features of the work of W. A. Woodis, Worcester, Massachusetts.

M. C. CONNOR, Sharon, Pennsylvania.— The circulars are both good specimens. The punctuation points after display lines are unnecessary, however.

R. LANARD NEAL, Marion, Indiana.— Your specimens show considerable improvement over former work. The club year-book page is especially attractive.

THE productions of D. Gustafson, Red Wing, Minnesota, are uniformly creditable. Reproductions are shown herewith of one of his pages, illustrating different treatments. Both of these contain many good features. On



the originals the two large lines and the firm name are in red, balance in black.

AN artistic program in black, red and light green has been received from W. Mitcham, Natal, South Africa. The typography and presswork show careful attention.

ATTRACTIVE specimens have reached this department from The Dugazou Press, New Orleans, Louisiana. Several unique designs are shown and the work is well handled.

A PACKAGE of commercial specimens from the Live Oak Publishing Company, Live Oak, Florida, contains neat, modest typography and harmonious color combinations.

"THE SCENIC LIMITED" is the title of a unique pamphlet issued by the Denver & Rio Grande Railroad to advertise its new daylight train through the Rocky Mountains between Denver and Ogden. The printing is from the press of Carson-Harper, Denver.

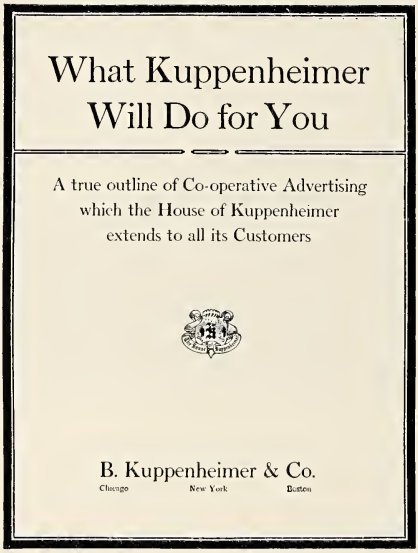
SPECIMENS from J. Warren Lewis, Pasadena, California, contain exceptionally clever advertising designs and tasty composition. The booklets are especially worthy of notice.

STEVE LOWLEY, Gering, Nebraska.— The letter-head is original in design, but would have been much better in two colors, as the decoration is rather heavy for a one-color production.

W. C. TUNSTALL, Scranton, Pennsylvania.— The booklet is a great improvement over the majority of publications of this class, the cover being very unique and appropriate.

GEORGE W. SHIRLEY, Philadelphia, Pennsylvania.— Your specimens are neat and show, with the exception of the card, careful use of color. The heavy rule on the card throws the weight of color too low.

AN exceptionally artistic specimen is a booklet printed by the Binner-Wells Company for The House of Kuppenheimer. It is 11 by 14 inches in size and contains reproductions in colors of posters, street car advertisements and other literature used to advertise the Kuppenheimer clothes. The cover



is embossed in dark green and gold on light-brown stock, and the title-page, a reproduction of which is shown, is in black and orange, the type matter being in black. The typography and presswork leave nothing open to criticism.

MASON N. CASE, Corning, California.— Text letters do not lend themselves readily to letter-spacing, and where possible this should be avoided. Otherwise your letter-head is very attractive in appearance.

THOMAS PERRY, Atlanta, Georgia.— Smaller sizes of type should have been used on the bill-head, especially for the "M" preceding the line for the debtor's name. This line should have been much shorter.

OLIVER C. SCHOFIELD, Richmond, Virginia.— Your specimens show originality in design and a discriminating use of color and ornamentation. The letter-head and envelope for your own firm are especially commendable.

THE Schumann Art Print, South Norwalk, Connecticut.— The letter-head would be better without the ornament in the center panel or the borders in the end panels. They do not add anything to the job, but complicate it instead.

FROM the Peerless Printshop, Wyoming, Iowa, another package of high-class commercial stationery has been received. The typography, presswork, stock and treatment of color all combine to make the productions of this press unusually attractive.

A BOOKLET printed for the Morgan & Wright Co. by Hollister Brothers, Chicago, is a neat specimen. The cover is in three colors, embossed, while the body is in black over a tint on coated stock. The typography and presswork are beyond reproach.

THE Challenge Machinery Company, Grand Haven, Michigan, have issued a miniature catalogue of their machinery and supplies. It is for general

distribution, and covers their line thoroughly. There are twenty-four pages and cover, the body, which contains numerous half-tones, being printed in brown ink on white stock. The cover is in black and red on brown stock.

A. J. Simmer, Sioux City, Iowa.— The cover submitted is original in design, but the use of the smaller size of text-letter in the last five lines leads to a rather confusing appearance. The use of old-style in this case would have been an improvement.

Gray Printing Company, Fostoria, Ohio.— Your specimens, with the exception of your own bill-head, are creditable and show much originality. The bill-head in question, however, is rather too ornamental and bizarre to be classed as good commercial stationery.

C. A. Boessell, Newkirk, Oklahoma.— There is just as much necessity for a period after the colors or the emblem as there is for one after the motto on the program. It is not needed in either place, but they should be consistent, no matter which style you choose.

D. C. Silve, New Orleans, Louisiana.— With the exception of a tendency toward overornamentation, your specimens are very good. On your own letter-head the rules are too heavy for the type-faces. Running the rules in a lighter color would improve it very much.

W. H. Coe, Grand Junction, Colorado.— Considering the amount of presswork involved, the letter-head is not what it should be. The use of a tint instead of the silver would have been an improvement, and would have saved an impression. The other specimens are much better.

The Tribune Company, New Albany, Indiana.— The specimens submitted are very good and leave little to criticize. The comma after the firm name and the periods at each side of the address line on the envelope are unnecessary, however, and their omission would be an improvement.

George R. Stout, Sumner, Illinois.— The placing of oval and rectangular cuts together on some of the pages is unfortunate and should have been avoided as far as possible. The separating of the name of the city from the name of the State on the cover-page, with the hyphens between them, is not good.

A Bergseth, Racine, Wisconsin.— The commercial specimens submitted are exceptionally well designed and executed. The program cover, however, is poorly displayed, the different groups of matter on the page being too nearly equal in attractiveness. The top group should have been given more prominence.

Henry L. Murphy, Fayetteville, North Carolina.— The envelope is less attractive in three printings than it would have been in two, with the omission of the ornament. Unusual improvement in appearance is necessary to justify the use of this sort of decoration on an envelope. The other specimens are good in type arrangement.

A reproduction is shown of an original and unique card. It was designed by Mr. Horace Cumming, Houston, Texas, and speaks well for his originality.



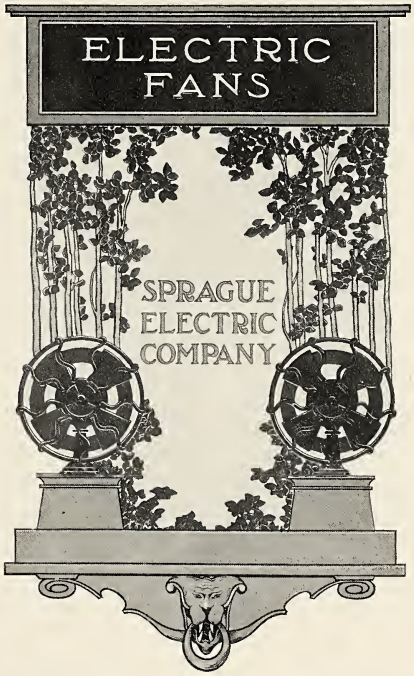
G. T. Parkhurst, Chelmsford, Massachusetts.— The program is very attractive and shows careful handling, with the exception of the running over of one word on the first page. The omission of the word "the" in the line above would have made this run-over unnecessary. On the bill-head the business is accorded too much prominence.

W. E. Spencer, Clarendon, Arkansas.— The letter-head should have had a little more white space at the top, the dash should have been shorter, and the rule in the date line not longer than twelve picas. A twelve or eighteen point rule at the end of the date line is sufficient. The name of the firm is in rather large type for stationery of this class.

H. F. Lake, Jr., Gunnison, Colorado.— The letter-head of the Lone Pine Ranch shows an injudicious use of rules, both for underscoring and the making of panels. In using rules for underscoring, the weight of the rules as compared with the weight of the type-face should be taken into consideration, and they should harmonize in tone. On the letter-head in question a heavy gothic line is underscored by light rules, giving an effect that is far from harmonious. Where light-faced rule is used for panels the presswork must be well done and the rule in good condition.

"Eastward Through the Storied Northwest" is the title of an attractive booklet issued by the Northern Pacific Railway. It deals in an interesting manner with a trip from California eastward over the Shasta-Northern Pacific Route and gives entertaining descriptions of the objects of interest en route. It is excellently illustrated with half-tones printed over tints.

A catalogue of electric fans recently issued by the Sprague Electric Company is worthy of especial notice on account of its handsome cover, a reproduction of which is shown. The cover is in four printings — black,



blue, green and gold — on white pebbled stock, and the title-page is in black and a tint of blue on white coated stock. The balance of the catalogue, which contains numerous half-tones, is well printed in black and blue. The whole forms a most pleasing piece of work.

The Evening Telegram, St. John's, Newfoundland.— The type-face used on your bill-head is entirely too large and heavy for commercial stationery of this class. The initials do not harmonize with the type, being small and light in tone as compared with the balance of the line. The use of the same style of initial on the card gives a more pleasing effect as it is more in harmony with the type.

The usual high standard of excellence of the productions of the Matthews-Northrup Company, Buffalo, New York, is maintained in the recent specimens. Among the most artistic of these are a booklet for Higgins & Seiter, New York city, with a delicately lettered cover embossed in gold on white stock, and a booklet for the Chicago Beach Hotel, the cover and title-page of which are especially appropriate.

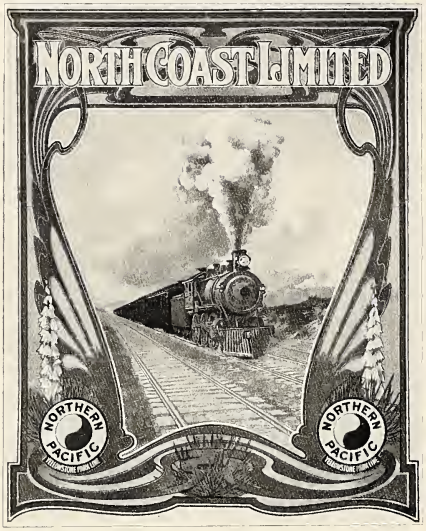
Unusually attractive are specimens from the School of Printing of the North End Union, Boston, Massachusetts. Chief among these is a booklet entitled "The Features of a Printed Book." It consists of forty-four pages and cover and shows examples of the typography of modern book pages, together with much technical information. It is well printed and shows careful typography.

Otto Moore, Texarkana, Arkansas.— While your specimens are, on the whole, very creditable, a few of them show a tendency toward an excess of ornamentation. The use of decorative effects on business stationery should be well considered and they should be in harmony with the style of the type-face used or have some relation to the business for which the stationery is intended. But the use of ornaments simply to "fill up,"

and that without regard to tone harmony, shape harmony or the appropriateness of the decoration, should be avoided.

"Summer Excursion Routes — 1906" is the title of a comprehensive book of resort information issued by the Pennsylvania Railroad. It is from the press of Allen, Lane & Scott, Philadelphia, Pennsylvania, and is rather in advance of the work usually done in this class of advertising. Numerous half-tones show the attractions and beautiful scenery to be found on the lines and connections of the Pennsylvania Railroad.

An artistic booklet is the "North Coast Limited" a beautifully illustrated description of the North Coast Limited transcontinental service of the Northern Pacific Railway. The cover is in three colors, while the illustra-



tions are in black and the text in gray. It is the work of the Randall Printing Company, St. Paul, Minnesota. A reproduction of the cover is shown.

An interesting bit of printing is the program of the anniversary services of the printers' mass in New York city on May 6, 1906. The program contains a half-tone of St. Andrew's Church, in which on May 5, 1901, this early morning mass — the first ever celebrated for night workers — was instituted. Portraits of the pastor, archbishop and assistant priests are also shown. The cover is hand-lettered with illuminated initials.

New Century Printing Company, Lebanon, Pennsylvania.— The booklet contains many common faults. The use of heavy type and light-faced rules on the cover produces an appearance that is not harmonious. The weight of rules or ornamentation should be in keeping with the weight of the letter. Slightly heavier rules around the inside pages would have made a better showing on the hard, rough stock used. The spacing around the initial letter is very poorly handled.

A copy of volume I of "The Silver Standard" has reached this department and proves to be a unique publication. It is published by the International Silver Company, of Meriden, Connecticut, and is primarily a house organ. The fact that it is dated in 1847 and gotten up in the form of a newspaper of that period, with articles of national interest taken from publications of those days, shows, to quote the publishers, "A striving after typographical distinction; a searching for the interesting and curious; a stirring up of the mustiness of by-gone customs and opinions; a dabbling in the history of our country." It is an exceptionally interesting publication.

Blotters have been received from the following firms: Manship & Boitz, Chicago; Frank McLees & Bros., New York; Rogers & Hall Co., Chicago; The Hillsboro *Journal*, Hillsboro, Illinois; Thompson Electric Works, Chicago; John T. Palmer Company, Philadelphia; The Caxton Company, Cleveland, Ohio; The F. H. McCulloch Printing Company, Austin, Minnesota; D. B. Landis, Lancaster, Pennsylvania; Joseph Dixon Crucible Company, Jersey City, New Jersey; Lincoln *Freie Presse*, Lincoln, Nebraska; J. W. Cass, Johnson City, Tennessee.

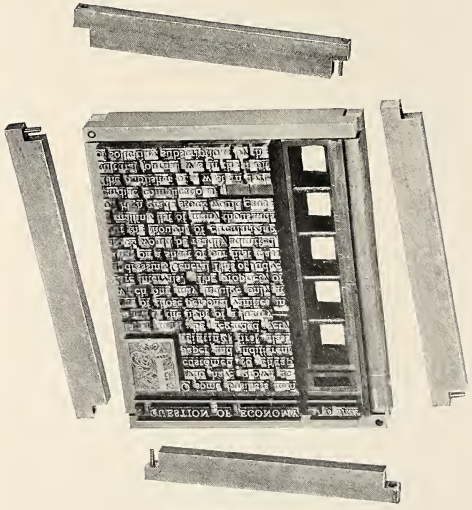
Business Notices

This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

The Springfield paper-ruling machine, built by E. J. Piper, Springfield, Massachusetts, is a well-constructed machine, having all the necessary mechanical appliances for producing accurate work rapidly. Mr. Piper entered the ruling-machine field in 1863, and the knowledge gained through this long experience enables him to turn out a machine which meets satisfactorily the most exacting of present-day requirements.

THE END OF THE STRING.

Almost every book of instruction in the art of printing contains several pages on how to tie up a page of type — how to grasp the string, to begin a certain way and end at a certain corner, and how to tuck in the end to hold the page fast. Many writers have devoted columns in the technical press to the same subject, giving instruction on how to wind up and knot the string after use, etc. That

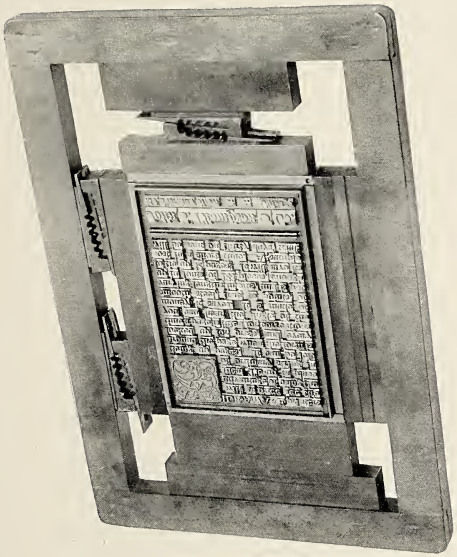


IDEAL STEEL TIE-UP.

the use of string in tying up pages is an abomination has long been recognized, but it seemed to be one of the necessary evils.

A practical device has just been invented which does away with the string nuisance and after thorough tests is found to be a wonderful time and money saver. Instead of tying string around the job or page, it is enclosed in a steel frame joined at each corner in such a way that the tie-up can be left around the type when the pages are

locked up for the press, saving the time of untying, and later the time of tying them up again, when the form is ready to be broken up. The "Ideal" Tie-up, as this furniture is called, consists of steel strips eighteen points in thickness made up in varying lengths to even picas, each piece being provided with a pin in one end and an enlarged hole in the other. All pieces are interchangeable, and the "play" at the corners allows for the squeeze of the lock-up. When a job tied up with the "Ideal" Tie-up is to be lifted to the galley for correction, the removal of one side piece unties the job in an instant, and the time saved rapidly pays for the cost of the material. Another important point in bookwork is the fact that pages can be fully



LOCKED UP IN THE CHASE.

justified to exact lengths inside the steel enclosure, insuring perfect register and rendering unnecessary any justification on the stone.

If the form is to be electrotyped, type-high bearers are placed around the sides of the page without removal of the tie-up, guaranteeing a plate free from that class of errors which occur when strings are removed in locking up for foundry.

Still another feature of the Ideal Tie-up is that it answers for use as steel furniture in blanking out pages, forms, etc., and in this connection it is equivalent to that of the ordinary kind now in use.

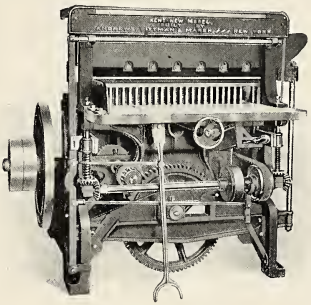
The Ideal Steel Tie-up seems to be one of the most practical labor-saving devices for the composing-room, and the readiness with which printing-houses are taking it up proves its economical advantages. John S. Thompson & Co., 130 Sherman street, Chicago, are the patentees and manufacturers.

THE WAITE COUNTER-CHECK BOOK MACHINE.

This machine, advertised on another page of this issue, will turn out the highest class of printing and is not limited to counter-check book work. It will print in a satisfactory manner anything that can be run from roll paper. It prints from flat forms and will deliver from ten to twelve thousand sheets an hour, printed on one side and numbered in another color on both sides, the sheets being counted and collated as delivered. This machine has been adopted by the largest printers of counter-check books in Great Britain and is giving perfect satisfaction. Further particulars may be had by writing to the Toronto Type Foundry Company, Limited, 70-72 York street, Toronto, Canada.

CHANGE OF FIRM.

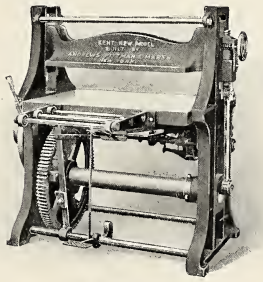
The Andrews & Pittman Manufacturing Company has purchased the plant, good will, etc., of the J. W. Kent Machine Company and has added another partner to the concern. Andrews, Pittman & Marsh will be the title of the firm in the future, and it will build the well known Kent Power Paper-Cutters and Die-Cutting Presses, for which there is a steadily increasing demand, in addition to



KENT POWER PAPER-CUTTER.

its Ideal iron grooved blocks, register blocks, iron topped imposing tables, printers' supplies and general machine work.

This concern has made rapid strides in the trade since its inception four years ago, and has gained the confidence of the trade by fair dealing and uniform high grade, as well as advanced labor and time saving qualities of its various products.



KENT DIE-CUTTING PRESS.

The Kent Power Paper-Cutters, "the machines that have made good for thirty years," will be kept up to the high standard the firm has always maintained and several improvements have been added that will keep them in the front rank of high-grade power paper-cutters.

We predict a growing business for the Kent Paper and Die-Cutting Presses, that have held the reputation for

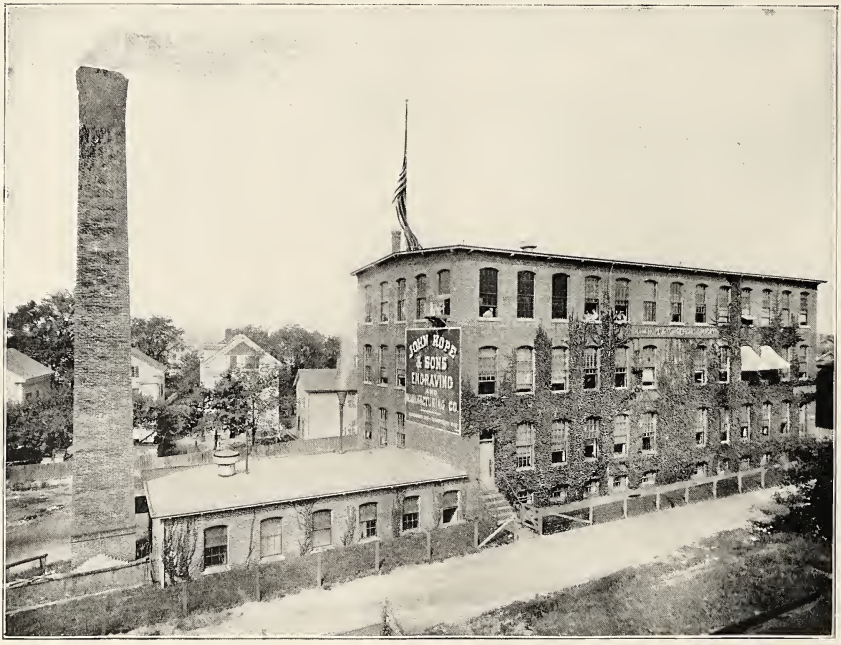
years of being the strongest and most accurate machines in their line.

Mr. Hamilton R. Marsh, the new member of the firm, is a novice in the paper-cutter line, but his extensive acquaintance and genial personality insure that he will be favorably heard from in the trade in the near future.

Messrs. Andrews & Pittman are already well known in the East and need no introduction from us, but we are sure that their past reputation for square dealing is sufficient guarantee to insure a prosperous business for the new concern. Their advertisement appears on another page of the present issue.

RULING AND PANTAGRAPH MACHINES.

Herewith is shown the plant of the John Hope Engraving and Manufacturing Company, Providence, Rhode Island, which makes a ruling machine and a pantagraph machine, each the best in its class, for steel and copper plate and other engravers. This company began business in 1847 and the subsequent years have seen a marvelous growth in its business. Any one interested in engraving will do well to get in touch with this representative house, whose machines are superior to any others of the sort made abroad. This statement is amply substantiated by many concerns who have tried the machines. Write to-day for further particulars to John Hope & Sons, Engraving & Manufacturing Company, Providence, Rhode Island.



PLANT OF THE JOHN HOPE ENGRAVING AND MANUFACTURING COMPANY.

NEW MODEL 5 LINOTYPE MACHINE.

Following its policy in continuously improving and progressing, the Mergenthaler Linotype Company, of New York, announces in this month's advertisements a radically new quick-change Linotype, known as Model No. 5. This machine marks a new era in the history of composing machines. If there were any objections in the offices of book and job printers to the Linotype, because a complete change of face could not be made quick enough to suit their several requirements, this new machine will certainly overcome all of them.

The new Linotype is of the standard model — that is, containing one magazine, but with this vast improvement: where formerly the magazine was lifted upward from the back of the machine, requiring the services of two men to make the change, and consuming some few moments, in the new machine the magazine lifts directly from the front, is less than the weight of the old magazine, and the entire change can be made by a boy. The mechanism has been made so simple that any boy in the office can be trained to make the change in a few moments.

Another change which will be welcomed by printers is in the price of extra magazines, the new ones costing but $100 each, where formerly they cost $163 each. With the new machine practically every need of the book and job office can be taken care of, and corrections made in different faces in a startlingly short time.

There is also another advantage: As the magazine lifts from the front, the machine occupies less floor space, as it has been necessary to leave a certain amount of room in the rear of the machine that the magazines might be changed.

The advertisement of the Mergenthaler Linotype Company in this issue shows an illustration of the machine and a man removing the magazine. As the Linotype Company announces that it has full descriptive circulars ready, we would advise all printers to send for them.

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

A POCKET COMPANION for Linotype operators and machinists; price, $1. S. SANDISON, 318 W. 52d st., New York, N. Y.

COST OF PRINTING, by F. W. Baltes, presents a system of accounting which has been in successful operation for many years, is suitable for large or small printing-offices, and is a safeguard against errors, omissions or losses; its use makes it absolutely certain that no work can pass through the office without being charged, and its actual cost in all details shown; 74 pages, 6¾ by 10 inches, cloth, $1.50. THE INLAND PRINTER COMPANY, Chicago.

DRAWING FOR PRINTERS, a practical treatise on the art of designing and illustrating in connection with typography; containing complete instructions, fully illustrated, concerning the art of drawing, for the beginner as well as the more advanced student, by Ernest Knaufft, Editor of *The Art Student*, and Director of the Chautauqua Society of Fine Arts; 240 pages, cloth, $2 postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELECTROTYPING, a practical treatise on the art of electrotyping by the latest known methods, containing the historical review of the subject, full description of the tools and machinery required, and complete instructions for operating an electrotyping plant, by C. S. Partridge, Editor of "Electrotyping and Stereotyping" department of THE INLAND PRINTER; 150 pages, cloth, $1.50 postpaid. THE INLAND PRINTER COMPANY, Chicago.

HINTS ON IMPOSITION, a handbook for printers, by T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions; several chapters are devoted to "making" the margins; 96 pages, 4 by 6 inches, full leather, flexible, gold side stamp, $1. THE INLAND PRINTER COMPANY, Chicago.

PHOTOENGRAVING, by H. Jenkins, containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapters on dry-plate development and half-tone colorwork; no pains have been spared to make the work of utility, and all generalizing has been avoided; no theories have been advanced; profuse examples show the varied forms of engraving, the three-color process being very beautifully illustrated, with progressive proofs; blue silk cloth, gold embossed, revised edition, $2. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL FACTS FOR PRINTERS, by Lee A. Riley; just what its name indicates; compiled by a practical man, and said to be the most practical little book ever offered to the trade; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL GUIDE TO EMBOSSING, written by P. J. Lawlor, and published under the title "Embossing Made Easy;" we have had this book thoroughly revised and brought up to date, and added a chapter on cylinder press embossing; contains instructions for embossing by the various methods applicable to ordinary job presses, for making dies from various materials readily obtained by every printer; also for etching dies on zinc; there are cuts of the necessary tools, and a diagram showing the operation of the dies when put on the press; 75 cents. THE INLAND PRINTER COMPANY, Chicago.

PRESSWORK, a manual of practice for printing pressmen and pressroom apprentices, by William J. Kelly; the only complete and authentic work on the subject ever published; new and enlarged edition, containing much valuable information not in previous editions; full cloth, 140 pages, $1.50. THE INLAND PRINTER COMPANY, Chicago.

"THE BOOSTER"—Has done untold good for us; sample copies 15 cents, or for 25 cents we will send "The Booster" and a half dozen "Business Bringers and Holders," such as we have used and found successful. DOERTY PRINTERY, Findlay, Ohio.

THE RUBAIYAT OF MIRZA MEM'N, published by Henry Olendorf Shepard, Chicago, is modeled on the Rubaiyat of Omar Khayyam; the delicate imagery of Old Omar has been preserved in this modern Rubaiyat, and there are new gems that give it high place in the estimation of competent critics; as a gift-book nothing is more appropriate; the binding is superb, the text is artistically set on white plate paper, the illustrations are half-tones from original paintings, hand-tooled; size of book, 7¾ by 9¾, art vellum cloth, combination white and purple or full purple, $1.50; edition de luxe, red or brown India ooze leather, $4; pocket edition, 3 by 5¾, 76 pages, bound in blue cloth, lettered in gold on front and back, complete in every way except the illustrations, with full explanatory notes and exhaustive index, 50 cents. THE INLAND PRINTER COMPANY, Chicago.

VEST-POCKET MANUAL OF PRINTING, a full and concise explanation of the technical points in the printing trade, for the use of the printer and his patrons; contains rules for punctuation and capitalization, style, marking proof, make-up of a book, sizes of books, sizes of the untrimmed leaf, number of words in a square inch, diagrams of imposition, and much other valuable information not always at hand when wanted; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

FOR SALE — Complete newspaper and job plant in excellent condition, publishing daily 1,600 circulation, weekly 2,500, in growing city of 12,000 population; doing between $2,500 and $3,000 of business per month and steadily increasing; in splendid field to improve. For particulars, price and terms write C. A. McCOY, Lake Charles, La.

FOR SALE — Half interest in job office located in northern city of 75,000 for $4,000; doing $1,500 business a month. W. W. HUNTLEY, 913 Park Place, Duluth, Minn.

FOR SALE — Modern job plant, clearing $2,500 a year; must sell; snap for quick buyer. E 367.

FOR SALE — Printing office doing $800 good, clean business monthly; 6 presses, 4 motors, cutter, type, and cut cabinets, and a full line in up-to-date type-faces and body-type; price, $2,250; terms. P. O. Box 312, Denver, Colo.

FOR SALE — $300 cash, balance easy payments, buys a job bookbindery; cleared $1,500 last year; good reasons for selling. G. W. WOODFORD, Carthage, Mo.

Publishing.

CLASS JOURNAL FOUNDATION, established 28 years; is run down, but makes profit; great enhancement possible; physical assets about $15,000; gross business $15,000; price $15,000 cash. HARRIS, 253 Broadway, New York.

FOR SALE OR EXCHANGE.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

A BEST MANUFACTURED STEREOTYPE PAPER, which is ready for use, for Cold or Hot Process; our Patent Front and Back Matrix Paper requires only Two Seconds to make ready and to beat or to press in; each matrix will cast a number of excellent plates; we mail 12 Front and 12 Back Matrix sheets for $1; we also have the largest selection of Stereotype Machinery of latest improvements. F. SCHREINER MFG. CO., Plainfield, N. J.

BABCOCK No. 7, regular drum cylinder, prints 7-column quarto, back up, tapeless delivery, rack, screw and table distribution; been in use on a weekly paper less than two years, good as new; will sell for about half price; small cash payment, balance on time; no money required until press is running and proves satisfactory. SPIRIT PUBLISHING CO., Punxsutawney, Pa.

BABCOCK PONY DRUM No. 2 regular, bed 22 by 27, complete in every particular, absolutely as good as new; jobber, Thorpe Gordon, 10 by 15, throw-off, treadle, steam fixtures, roller stocks, chases, good condition, cheap; stitcher, Perfection No. 2 wire stitcher new and in first-class condition, a bargain. THE CATARACT JOURNAL CO., Niagara Falls, N. Y.

CYLINDER PRESSES CHEAP — One each: Hoe 2-revolution, 4-roller, air springs, table distribution, tapeless delivery, 4 tracks, box frame, side and overhead steam fixtures, complete, bed sizes, inside bearers, 32 by 47, 36 by 51, 38 by 55, 45 by 60; one Cottrell 2-revolution, 4-roller, bed 27 by 37, air springs, table distribution, front fly delivery, complete, side and overhead steam fixtures, trip, back-up; one Babcock pony drum, bed 27 by 38, 2 form rollers, air springs, rack and screw distribution, tapeless delivery, back-up, side and overhead steam fixtures; one Cottrell drum, bed 27 by 39, 2-roller, air springs, rack and screw distribution, tapeless delivery, box frame, side and overhead steam fixtures; all in first-class order; will be sold very cheap, on easy terms, f. o. b. cars. Address at once E. H. PALMER, 164 Federal st., Boston, Mass.

FOR SALE — A good weekly in Southern Minnesota; do not write unless you mean business. POST, Blue Earth, Minn.

FOR SALE — Cranston job cylinder press, 49½ by 23 bed, rack distribution, tapeless, back-up motion, wire springs, in first-class running condition; taken out to make room for an Optimus press; to be sold cheap. NEWS-DEMOCRAT PUBLISHING CO., Canton, Ohio.

FOR SALE — Two Cottrells 37 by 55, plate distribution, back delivery; one Campbell 22 by 28, plate distribution, front delivery. CADILLAC PRINTING CO., 97 Fort st., West, Detroit, Mich.

FOR SALE — Two 8-point Thorne machines in excellent condition, now in use, cheap; also 8 by 12 brass arm Gordon press and 29 by 43 Cranston drum with all improvements. REPUBLICAN, Columbus, Ind.

Knife Grinders

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E — To stand on bench. Dry grinding only. 26-in. $50, 32-in. $55, 38-in. $60.

Style A — With iron stand. Wet or dry grinding. 26-in. $75, 32-in. $85, 38-in. $90, 44-in. $100, 54-in. $115, 60-in. $150. With water attachment, $10 extra.

Style C — Extra heavy. Wet and dry grinding. 54-in. $185, 60-in. $185, 75-in. $205, 90-in. $225.

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N. Y.

FOR SALE OR EXCHANGE.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

FOR SALE — First-class medium sized complete job plant cheap; business good. Write R. H. TILNEY, Cripple Creek, Colo.

RESIDENCE FOR SALE.

FOR SALE — New frame cottage, 5 rooms and bath, lot 40 by 125, located in Fernwood on improved street, sewer, water and gas in; convenient trains from Polk street depot, Chicago, thirty-eight minutes; price, $2,000 — easy terms like rent; owner 1138 Monadnock bldg.

HARRIS ROTARY PRESS, large size, prints stock up to 15 by 18 inches, nominal running speed 6,500 impressions per hour, used but little and in first-class condition, for sale at a bargain and on reasonable terms. E 322.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with The Inland Printer Employment Exchange, and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job printers, 14; Linotype operators, 7; Monotype operator, 1; Simplex operator, 1; machinist operators, 4; linotype machinist, 1; foremen, 6; all-round men, 5; bookbinders, 8; stonemen, 3; ad-men, 2; make-ups, 2; compositors, 6; artist, 1; pressmen, 14; proofreader, 1; editor, 1; stereotyper, 1. Registration fee, $1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

Composing-room.

FIRST-CLASS JOB COMPOSITORS — Union, 8 hours, wages $20 and upwards; send samples. F. W. BALTES & CO., Portland, Ore.

Engravers.

WANTED — Half-tone operator; also prover — one who is familiar with Golding art jobber; steady positions guaranteed to strictly first-class men. E 361.

Foremen.

FIRST-CLASS JOB-PRINTER who can take charge as working foreman; open shop, 53 hours; good wages for right man. E 385.

FOREMAN for composing-room; an experienced man. Write fully concerning ability, references, salary. F. P. BUSH, 412 W. Main st., Louisville, Ky.

SUPERINTENDENT printing plant in New York State with 5 cylinders and 7 jobbers; must be capable of taking entire charge, and of producing proper amount first-class work at minimum cost; state age, experience, references and salary expected. E 379.

WANTED — All-round man capable of earning $21 per week to assist proprietor inside and do soliciting; job office doing high-grade work; open shop; Connecticut; splendid opportunity. E 368.

WANTED — Foreman of composing room, open shop, of 10 or 12 men, on job, blank book and fine catalogue work; state experience, age, and wages expected. E 176.

WANTED — Working foreman and assistant superintendent in high-class catalogue printing-house; volume of work, $20,000 per month; must be modern methods and systematic, must be able to handle help, schedule work, forward it from one department to another, also O. K. forms for quality of work. E 363.

Manager.

PRINTERS' ADVERTISING MAN wants position; salary, 50 cents each business-bringing advertisement; send trial order. CHARLES JOHNSTOWN CO., Ayer, Mass.

WANTED — An experienced and practical man to manage a job and newspaper plant, with a daily and weekly paper, doing an annual business of over $25,000; desire the party able to buy an interest in and take full charge of the business. For particulars address E 262.

Operators and Machinists.

AN EXPERT LINOTYPE OPERATOR-MACHINIST, with long factory experience, desires change; install or overhaul plant, swift and clean operator; anywhere west of Rockies, B. C. or Alaska; strict abstainer; excellent references and testimonials. E 392.

MACHINIST-OPERATOR desires change; fast, clean operator and A-1 machinist; sober and reliable, married, union. E 63.

SIMPLEX OPERATOR on daily paper; or, can make excellent offer to good printer and wife, if latter is Simplex operator. DISPATCH PUB. CO., Juneau, Alaska.

WANTED — First-class Linotype operators for high-grade book work; steady position; union. E 380.

WANTED — One or two Linotype operators; union, 8 hours, day work; minimum $19 for 4,500 an hour, liberal bonus over 5,000; newspaper work. E 370.

Proofroom.

WANTED — Proofreader experienced on high-class book work; good salary and steady employment. E 38.

Miscellaneous.

WANTED — An experienced news ink maker to take full charge of small modern plant; good wages, permanent position. E 357.

WANTED — Young man thoroughly familiar with the poster business; for one who can estimate and sell the goods we have a very desirable opening. E 386.

SITUATIONS WANTED.

DO YOU WANT HELP FOR ANY DEPARTMENT? The Inland Printer Employment Exchange has lists of available employees for all departments, which are furnished free of charge. The following are now listed with us, seeking employment: Pressmen, 9; stereotyper, 1; Monotype operators, 2; ad-men, 3; proofreaders, 4; inkmaker, 1; photoengravers, 3; job-printers, 12; stonemen, 3; artist, 1; cartoonist, 1; editors and reporters, 6; bookbinders, 5; superintendents and foremen, 17; all-round men, 3; make-ups, 5; advertising and business managers, 3; Linotype operators, 13; machinist operators, 11; Linotype machinists, 6. THE INLAND PRINTER COMPANY, Chicago.

Composing-room.

JOB COMPOSITOR, first-class, used to handling the better grade of composition, no boozer, industrious, wants position with reliable firm. E 383.

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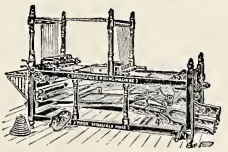
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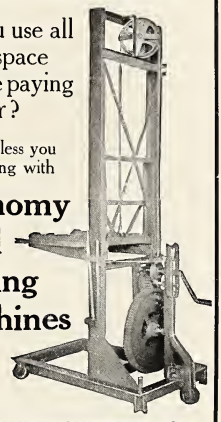
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NO. II.— BY "QUADRAT."



TO properly see a large object or properly comprehend a historical period it is necessary to get a proper visual or mental perspective. We can not appreciate the immensity of a mountain if we camp at its base: as we move away from it, its true grandeur is seen; so it is also with historical events. The past is the perspective of the present, as it is also the best prophet of the future. So, by leave of our editor, I shall devote this article to an endeavor to place the reader in a true perspective to those events, closer to the present day, which I propose to relate, in which men known in some degree to all printers participated, and which will, perhaps, be more interesting because more intimate.

The earlier printers made their own types, presses, inks and paper, or supervised the making. As the demand for printing increased, the manufacture of the implements and materials used by printers were taken up as separate businesses. The first typefoundries were established in Holland, and down to the third quarter of the eighteenth century, until about the year of American independence, Holland was the chief center of printing and publishing and typemaking.

Except Switzerland, Holland was the first country to have freedom of conscience and of the press, this liberty being the fruit of a heroic war of eighty years, waged against Spain for independence, when Spain was at the apex of its power. Dutch freedom was secured at the end of the sixteenth century; English liberty of the press not until the beginning of the eighteenth century, while Prussia enjoyed a like freedom under Frederick the Great from 1711.

At the beginning of the eighteenth century there were two literatures, French and English, and they were as little known to each other as the Chinese literature is known to the American of to-day. All educated Europe spoke French and read French authors almost exclusively, and saw French plays and followed French fashions; but France, until the death of Louis XV. in 1774, and in fact until the great revolution of 1789 swept away and punished tyranny, was not free; and its great authors, such as Diderot, Voltaire, d'Alembert, Rousseau and many others, were not allowed to print their chief works in France. No book could be printed without a license, and no book containing opinions on science, philosophy, politics or religion not in harmony with the opinions of a governing clique of Jesuits could get a license. For example, no one was allowed to print anything in favor of Newton's principle of gravitation nor anything in praise of France's most liberal king, Henry IV. The editor of the first encyclopedia had to resort to a subterfuge to get historic and scientific facts into it. These were printed in detail as "errors," under cover of an elaborate pretense of refuting them. As a result of this tyranny French scientists and authors sent their works to be printed and published in Holland, from whence they circulated throughout Europe and also in France. Freedom made Holland preëminent in commerce and manufacturing for two hundred years, as it was the refuge of the persecuted intelligence of the world. Dutch printers

were usually publishers also, and they gained great wealth.

After the revolution, France became the publishing and printing center, and Holland's book trade dwindled away; Germany also expanded its printing trade as Germanic literature was created by Lessing, Goethe, Schiller and their numerous disciples.

From this general review of the status of printing and its kindred trades, I will pass over an intervening period of slow but constantly accelerating progress, and note the status of typemaking at the end of the third quarter of the nineteenth, when the great typemaking countries were on the eve of keener competition for trade beyond their own boundaries, and when the typemakers of the United States had just declared their independence, and expressed in action their ability to renounce the lead of Europe and become leaders in turn.

Great Britain, France, Germany and the United States were then, as now, the principal typemaking countries. Holland, Italy, Austria, Russia, Spain and Japan also make type at the present time, but in limited quantities. Germany was supplying its own wants and those of northern Europe, but had not then reached out for a world market.

There were almost as many body standards as foundries, and even a lack of uniformity in height. The output was limited in variety, and deficient in originality so far as letter characters were concerned; but its borders, especially combination borders, and initials were quite original and artistic. Some of these were copied in America, but the combination borders were never completely put on the market: first, I think, because the differences in body made it impracticable to reproduce by electro-matrices and the cost of recutting would have been too great; and, secondly, because at the time they first came to the notice of American typefounders, American printers were surfeited and their taste vitiated by a succession of fearfully yet wonderfully made atrocities, styled Japanese, Chinese, Egyptian and other borders. Sons and nephews of progressive German typefounders were at work in American typefoundries to learn our methods and gather our ideas, and the German type industry was in accord with the spirit of commercial renaissance that animated the revivified empire at that time.

Germany adopted the French body standard, but when it reached out for a world market it also adopted the American point system, and did us the further honor to copy very many American typefaces; with these and a few original faces it now competes against us in Great Britain and her possessions and in South America.

America has contributed three German text series to the printers of the fatherland. These are the Ihlenburg and Ihlenburg Extended (Germanizations of Bradley and Bradley Extended) and the Heintzemann; all much used in Germany. Ihlenburg is named after one of the best of type punchcutters, a resident of Philadelphia, to whom we owe many of the admirable faces produced by the MacKellar, Smiths & Jordan foundry.

German-bred typemakers, such as the elder Schraubstadter, Schroeder (who cut the DeVinne series, among other successes), Ihlenburg, Barth and others, all good Americans now, have been leaders in a country which afforded them greater scope than was to be found in Germany when they were young. The Heintzemann series was made by the Conners of New York at the suggestion and in conformity with the ideas of Karl Heintzemann, the well-known Boston printer.

The sale of German text type in the United States is fast dwindling to the vanishing point; thirty years ago it was a considerable item. In the exchange of skill and ideas in the type trade Germany has been greatly the gainer; and even more so in printing machinery. German typemakers have shown little originality, but are worthy of high praise for their good taste, as shown in their borders and initials and their discrimination between those American type-faces of merit which they have accepted and the very many fantastical and absurd emanations of bad taste in American type-designs which they have rejected. A German specimen contains nothing to offend the eye, while a specimen book would not be recognizably American if it did not possess its chamber of typographical horrors — or shall we be more kind and term them humorosities: bad jokes! It is difficult to persuade even the typographical American to take his trade seriously.

France thirty years ago, as it does to-day, supplied its own needs in type, and also those of Latin or Southern Europe. It enjoyed the chief type trade in South America. The Caslons of London had set up a branch in Paris, under the management of an Englishman named Tucker. It exists still under the old name, independent of the London house. When I visited it in 1880 it was French to the core. Elderly readers may remember *La Typologie Tucker* (James H. Tucker), a bright printing-trade paper issued in Paris, much quoted from in those days. This was Caslon's Tucker, and he had become a typical French *bon vivant*, was naturalized, and as a National guardsman had aided in the defense of Paris when besieged by the German armies in 1870. He became proprietor of the business prior to that event, but sold it back to Caslon for a life annuity, and ended his days in peace and comfort, editing his sixteen-page

journal to the last, more for love of our art than for profit. Mr. Tucker was a man very hospitable and interesting to the few visiting American printers of that day, among whom I was happy to count myself.

France is original and self-contained in all things, disdaining to be imitative; the only country of which this is entirely true. French typemakers were the first to adopt a uniform system and standard of type bodies. This is the Didot system, and the American system of point bodies is a copy of it, varying only in the standard. The French have a scientific standard, based on metric measurements, while the American standard is unscientific, and the result of compromise with an error. French type is higher than American, and the same comment applies to it as to type-bodies: the French height-to-paper is scientific, ours is not. In the late seventies the French were developing that beautiful family of old style romans and italics which we have copied under the names of Cadmus, French Old Style, and Elzevir and Elzevir Italic. That most successful of all the American type-faces, De Vinne, is simply a boldface French Old Style.

American and English typemakers are greatly indebted to the French, in addition, for a few ornamental faces, some elegant circular letters, and for the majority of the borders to be found in the specimen books of every typefoundry in the world from early in the nineteenth century until nearly its end. Some readers will remember that nearly all borders twenty-five years ago were cast on minionette body or multiples of it. That body was a great nuisance to printers of those days, who wondered why our typefounders inflicted it on them. It was a regular French point body, and had to be used with borders pirated from France. A typefounder can annex a letter face and adjust it to his own body standard, because he can put any shoulder on it he chooses; but a border has no shoulder, and hence the necessity of taking the body with the face. The French combination borders have never been approached in any country in beauty and flexibility. Examine the specimens for half a century, down to 1880, especially those of Figgins of London and the Johnson foundry of Philadelphia, and you will find scores of borders, copied from the French, which are a delight to every artistic sense. They are not in fashion, it is



Plate by The Inland-Walton Engraving Company. THE BEACH-COMBER. Photo by R. R. Sallows, Goderich, Ontario.

true, but time can not detract from their merit, because they are true in art, the *ne plus ultra* of typographic embellishments, and when the centennial souvenir of the Johnson Type Foundry was printed in 1898 it was one of these splendid French borders, designed for printing in colors, that was selected to adorn its exquisitely delicate title-page — a border that had been withdrawn from sale for two decades. It would not surprise me to see some of these borders come into fashion again.

French typography has a character unlike that of any other nation, admirably severe and simple as a rule, and exquisite in taste when ornamental. The French modern romans are invariably elongate-condensed, very legible, favoring the eye, very pleasing to me, but apparently not so to most English-speaking printers. MacKellar, Smiths & Jordan made four sizes of a French modern roman series, in 1865 — a series more nearly approaching our taste than any other produced in France — but there was little demand for it.

My first visit to a French typefoundry was for the purpose of purchasing some fonts of these peculiarly French old styles mentioned above, long before they were made in America, and I learned to admire the comfortable ways of long established firms in Paris. One of the largest foundries is situated in a quiet, umbrageous street; a high wall of stone surrounds it, the top overhung with vines, and the boughs of trees inside are visible from the street. There is a large carriage gate, in which is a wicket; on the wicket the name of the firm is painted in small characters; near by is a bell. I ring, and the wicket is opened by a porteress, who takes my card and conducts me through a well-kept garden, with a lively fountain in it, to a reception room full of charming pictures, with the smallest hint of business in the form of specimen books. In a few minutes I am conducted into the office of one of the firm, where my business is concluded in the courteous manner characteristic of the French. Courtesy is the democracy of the French nation.

Nor was the custom at this typefoundry a solitary instance; I had a similar experience in like surroundings when I visited a printing-ink concern of more than two centuries' standing, with the added compliment of an invitation to the dejeuner served daily in a handsome large dining-room. I never discovered where the shipping and receiving were done, but presumably through some rear entrance. I visited also the Marinoni printing-press factory, at that time if not now the most extensive in Europe. It is situated close to the Luxembourg Palace, the official headquarters of several of the ministers of state, in which the second great art gallery of France is also housed. The same methods of admitting visitors was practiced as before described. The factory is enclosed by a high wall, and might well be taken for a convent or university. Noise, bustle, dirt were conspicuous only by their absence. Marinoni presses, especially his rotary perfecting presses, are popular in every country except North America. He was at the time of his death the proprietor of the daily newspaper with the largest circulation in the world, the *Petit Journal*. French printers wear a black blouse, reaching below the knees, with a belt around the waist, not only when at work but also as their ordinary garb outside the workshops. Other French mechanics wear white blouses. French compositors use sticks only about one inch deep, and a French news-case is about the same length as our full size and about one-third deeper, one case holding both caps. and lower-case characters. A French printer who is paid by time is called a "conscience"; in England such men are termed "'stabs," which is an abbreviation of establishment. In wandering about that ever clean, quiet yet cheerful Paris one may frequently see the small shopkeeper and his family assembled around a table on the sidewalk, enjoying their meals, under the beautiful shade trees. I am told these customs are even more noticeable in the provincial towns. Truly, as was said two centuries ago by a great Englishman, "they do these things better in France." Almost was I persuaded to become a Frenchmen. *Vive la France!* We still have much to learn from thee.

YE COUNTRY EDITOR.

Eight o'clock, and found them calling "copy," "copy," "copy!"
Foreman cussing at a change of ad.
Sawed a column from exchanges — rather stale and sloppy,
But, by Jiminy, 'twas all I had.
Tried to write some locals, but an agent for O-Jell-O
Pestered me and quibbled two hours straight —
Reading-matter both sides, top of column! (Drat the fellow!
Got a contract far below the rate!)

Once again the locals — but the foreman waxed sarcastic,
Asking when that proof I meant to read.
Deacon Simpkins stopped the paper, saying, cold and drastic:
"Reckon you an' me air not agreed."
Mrs. Richards, also, just because I did not mention
Her in writing Bradley's party up.
Bill Duane dropped in to hint he wished I'd draw attention
(Gratis) to the fact he'd sell his pup.

Ought to write those locals, but I must get out and hustle,
Picking up some bus'ness on the street;
Gosh, you bet it's nothing but one big, eternal tussle,
How to keep the paper on its feet.
Now the firebell's ringing — see some smoke — hear people yelling;
Looks as though it might be Wilkins' roof.
Foreman warns he can not use those cuts, the base is swelling;
Can't make up until I read that proof.

Haven't time for dinner. Must grind out that batch of local.
Jones, the grocer, wants to see his puff.
Boy is digging at me with his exercises vocal,
Shouting "Copy!" "Proof!" "This ain't enough!"
Press won't work — confound! We've missed the mail! And here's an error
In the Perkins double-column ad!
Swears he'll never pay me. Just been in, and he's a terror!
Well, a day is done, and I am glad.

—*Edwin L. Sabin.*



Plate by The Inland-Walton Engraving Company.

Photo by N. Brock, Asheville, N. C.

IN THE PROPOSED APPALACHIAN NATIONAL PARK.

TO ASCERTAIN COST OF HAND COMPOSITION.*

BY EDWARD F. HAMM.



TO the job-printer, the item of cost in his hand-composition room means "cost per productive hour," or, in other words, how many chargeable hours does he produce and at what expense? This is the item on which there seems to be a great variance, judging from the many replies received regarding the estimated cost per hour.

In estimating composition we base it upon the number of compositor's hours required to compose or "set up" the job. To compose a job involves, in addition to typesetting: proofreading, copy-holding, errand boy with proofs, foremanship, general expense, and distribution; and since our estimates are based on the compositor's time, the cost of each hour of that time includes its proportion of those expenses. Up to this point, all composition is alike. Then comes lock-up for foundry or lock-up for press, or both. Lock-up is chargeable time and can not be included in the "cost per hour," and therefore must be separately estimated, the same as typesetting. The only productive or chargeable time the composition room produces consists either of ordinary composition (including make-up), alterations from copy, or, lock-up; all other time is non-chargeable and therefore unproductive.

Every employing printer should have a daily time ticket upon which he requires each compositor to render an account of his time.

It is only necessary to tabulate the figures thus furnished him, separating the chargeable from the unproductive time, to complete an unimpeachable record showing just how many "chargeable hours" his composing-room produces each week. Having ascertained the exact number of "chargeable" hours produced in the composing-room, the process of determining the cost of each hour is very simple. The data needed are: pay-roll of the department, valuation of type and fixtures, and proportion of general expenses chargeable to the department. Of the first, nothing need be said, since no printer can escape making up his pay-roll. The valuation of the plant for the purpose of ascertaining interest and depreciation should always be "first cost," because those items are intended to provide a proper return on inactive capital, and for the replacing of old tools with new. There may be some difference of opinion as to the proper percentage to be allowed for depreciation, but the consensus of opinion among those who are qualified to judge is that 15 per cent per annum is the least amount which can be safely estimated as the depreciation in value of a job composing-room. When the depreciation is reduced to "cost per hour of chargeable time," the difference between a liberal provision and one that might seem "fair" to you, is so small that there is little temptation to adopt the latter.

From the valuation of plants, therefore, are determined these two important items of cost:

Interest on capital invested.

Depreciation of plant.

By figuring these items for the year, a division of the totals by fifty-two will give the respective amounts for each week.

The general expenses of any business should be separately kept and it is presumed they are available. They are: rent, heat, power, light, salary of general officers and clerks, salaries of solicitors, insurance on plant and work in process, taxes, team, telephone, association, advertising, and incidentals composed of postage, carfare, telegrams, etc.

There should be no difficulty in determining the approximate amount of general expenses for



STUDY IN CHILD PORTRAITURE.
Photo by J. W. Swan, Montreal, Canada.

*From the Bulletin of The Master Printers' Association of Chicago, by Edward F. Hamm, Secretary. With this circular, Secretary Hamm has issued a little handbook of prices governing the ordinary line of commercial work and showing the basis of estimating for the pressroom and bindery, in addition to the composing-room, which it is hoped may assist in establishing, as far as possible, a uniform price on composition, press-work and binding. The Association invites comparison of cost from all Chicago printers and will gladly furnish information on application. While the secretary's announcement mentions Chicago printers specifically, there is a reasonable presumption that this courtesy will not be withheld from the trade generally, under suitable arrangements.

the year, from which is easily ascertained the amount of general expenses per week. This sum should be properly apportioned to the different departments. The apportionment should properly be based on the volume of business of each department. Having ascertained the amount chargeable to the composition room each week for interest, depreciation, general expenses, it is only necessary to add thereto the pay-roll of the department to ascertain the total cost of composition for the week. A division of this total by the number of chargeable hours produced shows the cost per hour. This method, though simple, is absolutely correct, and such a record kept throughout the year will enable the printer to know what is the lowest average cost he can reach in the operation of his shop. The composition room is, of all departments, the one to bear the closest watching. Its employees are all high-priced and every wasted hour is a dead loss to the business.

For the benefit of those interested in this important question, we print herewith a summary of the record of one of our leading Chicago offices for the four weeks ending April 30, 1906:

HAND COMPOSITION.

EXPENSES.

Wages	$1,287.85
General expenses	341.08
Interest	50.58
Depreciation	73.87
Total	$7,753.38

HOURS OF COMPOSITION.

Total hours	2,747⅔
Chargeable hours	2,230
Unproductive hours	517⅔
Per cent distribution	18.8
Cost per hour	78.6

COST PER CHARGEABLE HOUR.

Wages	57.7
General expenses	15.3
Interest	2.3
Depreciation	3.3
Total	78.6

These records are from a medium-sized successful concern which has reached at least the average of economical management and whose volume of business should enable it to produce this composition as cheaply as it can be done in Chicago.

The average of general expenses is shown here as 15.3 cents per hour, which, added to the labor cost of 57.8 cents per hour, represents a cost of 73 cents per chargeable hour paid out in cash for wages and general expenses alone. When these figures are analyzed and it is learned that an average of only 5.5 cents per hour is chargeable to interest and depreciation, no business man will be able to see any advantage in the getting of business by ignoring these items of cost. The reason for the hard conditions under which printers labor is the lack of knowledge of costs. The expenses have increased in the past few years, but printers having no records to show the effect of these increases on the cost per hour are still quoting the old prices and wondering why they are not making money.

From the figures contained in this report, we believe it is clearly shown that hand composition in Chicago can not be sold at less than ninety cents per hour to make a profit for the printer. It is hoped that, after a comparison of these figures with your own, the price per hour for hand composition established by this association may be maintained.

Written for THE INLAND PRINTER.

THE RUBAIYAT OF THE PRINTER.

BY A. CAMPBELL.

Wake! For the work that was left undone last night
Drives sleep from drowsy eyes before daylight,
For though the weary body cries for rest,
Things at the plant must keep a-moving right.

Whether at Naishapur or Babylon,
Whether the press has fast or slowly run,
You'll find the printer working overtime,
His lot's the hardest underneath the sun.

Would you your last remaining thousands spend
About the secret — quick about it, Friend!
Buy you a press, set up a printing plant,
You'll learn that to your work there is no end.

Myself when young did eagerly frequent
Proofroom and shop, and heard great argument
About it and about; but evermore
Came out more addled than when in I went.

Some for the profit in a job, and some
Who consider future orders that may come,
Quote prices that are hardly worth the while
Collecting, when it comes the time to dun.

And if a job is pied, now don't get hot,
Just fire the guilty culprit on the spot,
And then you'll have to burn the midnight oil
And set up type yourself as like as not.

The speedy press moves on, and having writ,
If it's all wrong, your piety and wit
Can't lure it back to cancel half a line,
Nor all your tears wash out a word of it.

Waste not your hour nor in the vain pursuit
Of this and that endeavor and dispute;
It matters not how well a job is done,
You can't expect your customer to suit.

We are no other than a moving row
Of struggling printer chaps, who come and go.
If competition grows, with jobs we print,
We'll be giving trading stamps next thing we know!

NEWSPAPER TRUST IN SPAIN.

A large stock company with an incipient capital of $2,000,000 has just been formed in Madrid for the purpose of absorbing all the prominent newspapers of Spain. It is called the "Sociedad Editorial," and has already bought outright the *Heraldo*, the *Liberal* and the *Imparcial*. Every paper absorbed will be edited in accordance with its previously sustained principles.

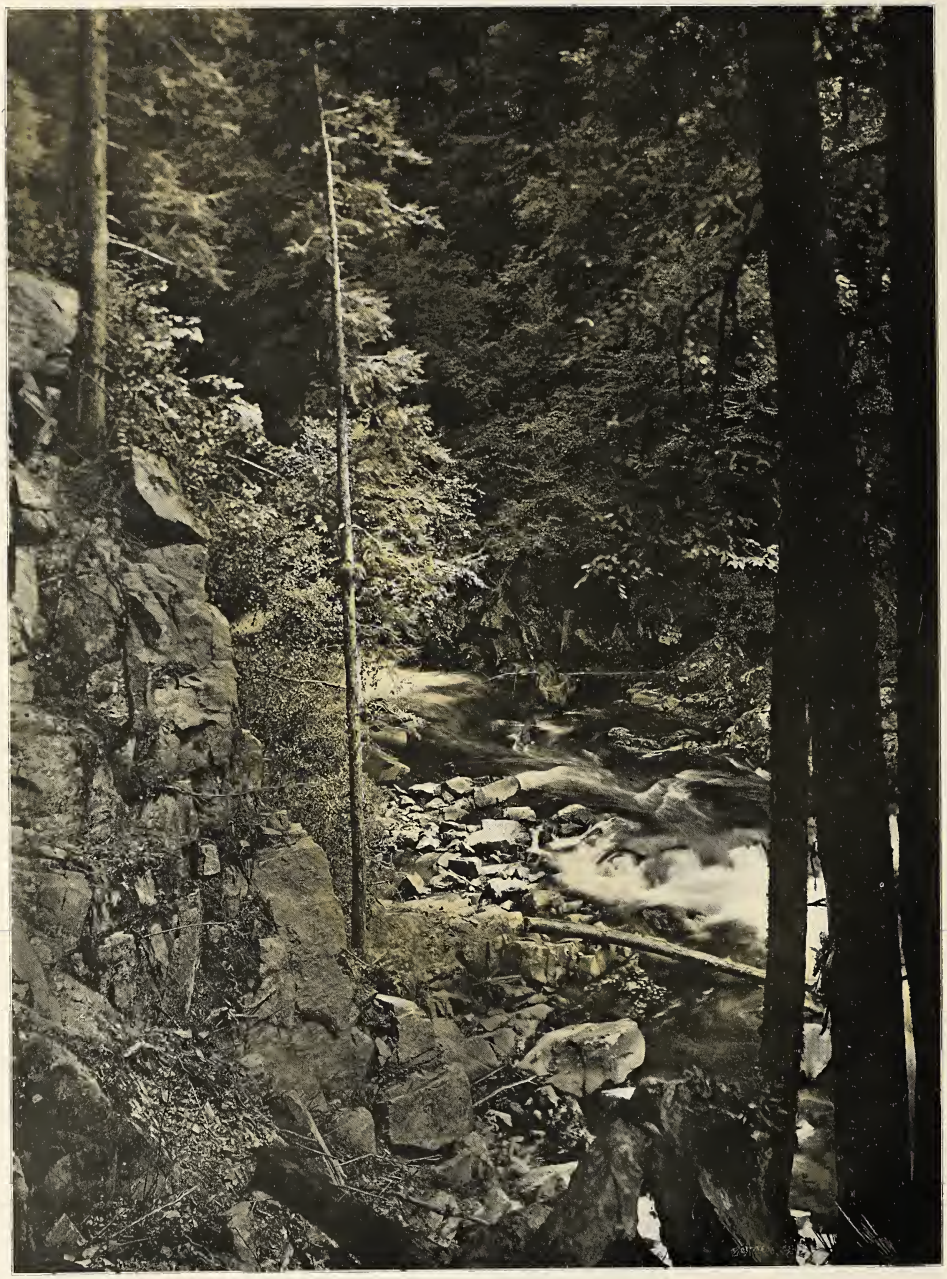


Plate by The Inland-Walton Engraving Company.

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A GLIMPSE THROUGH THE TREES.

APPALACHIAN NATIONAL PARK.

Written for The Inland Printer.

COMPOUND WORDS.

BY F. HORACE TEALL.



OUR article of last month on this subject did not indicate clearly any method of deciding when words should be compounded. No method can be formulated that will be satisfactory to any people except those who have been accustomed to the habit of thinking on which the method is based, and even they must differ in many instances. Practice has always shown such disagreement, and probably always will show it. This is why I ventured a bit of personal advertising, for the list named is of my own making. As was plainly said, that list gives hyphens in places where many persons prefer not to have them, where some would use a space, and where some others make one word.

In this writing the common printing-office distinction is to be used, calling terms one word when continuous, compounds when hyphened, and two words when separated by a space. This is a convenient way to distinguish the forms, though it is unquestionably illogical, as a continuous word made by joining two words is really the truest kind of a compound, and even such words as Sunday, Monday, etc., are in fact compound words.

It is the intention of these articles ultimately to show in detail how the forms in the list were decided as the writer's deliberate and in general unalterable choice. That choice is the result of a long and close study, taking into consideration all the various viewpoints and opinions, and sifting out and testing usage as far as anything that could be called usage could be found. And that study was made by a person who started with a strong feeling that the hyphen was a mere useless nuisance, and who was led by it, through many stages, to the as yet unshaken conviction that it is a very useful mark, and that liberal use of it is highly advantageous. It is difficult to decide just what is the best way to treat the subject, for it is one involving a great deal of detail. A persistent criticism of my work on the subject is that I have made too many rules, and it may be well founded; but I am sure that many rules are necessary for comprehensive treatment. And rules are not the essentially important feature of the work. The list is the whole thing for use as a guide, and it or any similar list would be very helpful, no matter in what forms the terms are given.

The form in which the criticism first appeared was in a review of the author's first book, "The Compounding of English Words," a book distinctly written as a discussion of principles and theories, and the reviewer said, "The rules he gives are confusing; there are at least ten of them and they are divided into forty classes — enough in number for the entire syntax of the language." I shall not try to controvert this, and must leave the reason for quoting it at all to be found later in these articles, only saying here that the forty classes were not intended as rules, and that ten is a much smaller number of rules than other writers make.

A few other remarks in the same review are suggestive and well worth consideration. It says: "Attention is called by Mr. Teall to a happily growing dislike to hyphens; and paragraphs are appearing in the newspapers announcing the intention of a great New York daily to discontinue their use. As in the case of capitalization, inability to find an infallible rule is prompting this despairing resolution. Such a treasonable surrender of any peculiarity of our English tongue should not be thought of; and, moreover, it will lead to misapprehensions especially dangerous in a newspaper, of which one instance in this volume of an advertisement in an English paper is a sufficient illustration: 'Mrs. Smithers has left off clothing of every description and invites inspection'— a scandalous and actionable announcement without a hyphen; but, with a hyphen, a perfectly innocent way of calling attention to a stock of second-hand clothes."

Here, in the same breath with an assertion of a happily growing dislike of hyphens, is another assertion that discontinuance of their use is treasonable and should not be thought of. Of course this was written to mean that hyphens should be used sometimes, though not so often as some people have used them; but it does not say it very clearly. It suggests a question: If the hyphen is necessary sometimes, should not the right times for its use be definitely ascertained and indicated, and can that be done satisfactorily without analogical system? Is there any real need for any such despairing resolution? Again, there are two ways to omit hyphens. How shall we know whether the term from which the mark is omitted is to be one word or two words?

Another passage in the review has a bearing on our questions, and shows on the reviewer's part a feeling practically in accord with the opinions to which he so strongly objects. He says: "The French write arc-en-ciel (rainbow), chef-lieu (capital), abat-jour (skylight), because each of these compounds is really one name for one distinct thing. They write beau-frère (brother-in-law), chef-d'œuvre (masterpiece), chauve-souris (bat), êtat-major (staff), treating as we do such pairs of words as one single name or noun; but even the French grammarians, with their passion for system, admit that it is usage which makes the authority."

Undoubtedly it is usage which makes the

authority, in English as well as in French or any language. But what makes or constitutes usage? The answer must be the same for any language, and surely a correct answer must disclose world-old principles. It can not be a curt or summary answer and be practical, as it must cover so many distinct details. I said last month that all style-books are inadequate, and it is just this summary treatment that makes them so. The best of them gives only a slight hint of analogy in a few examples, and leaves nothing practically sure to its users except the few terms actually instanced.

With a few words on what I think is most suggestive in the last quotation, this article must close. It will be seen that the writer makes a very broad assertion in the words, "treating as we do such pairs of words as one single name or noun." These words convey to my mind, as they stand, but one meaning, and I have little doubt that their writer did not mean just what they said. As they stand I can not read them otherwise than as asserting unqualifiedly that in English all such pairs are written with some kind of joining, either as compounds or each pair as one word. I think that what the writer had in mind was the fact that many pairs that are unquestionably unified in form are of that nature, but he did not say so.

I should be very glad to hear from all who have an opinion and will take the trouble to write to me, especially on the question of what constitutes the usage that is worthy of acceptance as authoritative. I think it would be very interesting to put the opinions together and compare them.



A MEXICAN SHOEMAKER.

Written for THE INLAND PRINTER.

MODERN BOOKBINDING.

BY A. HUGHMARK.

NO. XVII.—CARE OF BINDERY MACHINERY.

ALL bindery machinery has to be looked over daily for oiling, cleaning or adjustments, but some machines must have constant attention. To the latter class belong wire-stitchers, sewing machines and folding and feeding machines. As it is customary to have regular competent operators for folders, rounders and backers, and cutting machines, these should be in first-class condition at all times. From the constant wear on delicate parts of wire-stitchers and sewing machines, these must be given close attention in order to secure good results. The parts of a stitcher that must be looked over first when the staples become uneven or drop out are the cutting and feeding devices. It is always necessary that an equal portion of wire be fed up to the cutting blade as adjusted by the operator for the particular staple. If the staples are not uniform, it is certain the trouble originates either in the feed or former. The feeding is accomplished in all machines by straight friction or roll. The roll-feed type allows the pressure to be adjusted to the thickness of the wire; thus the wear is distributed equally all around the two rolls, bringing it down to a minimum. In machines where milled-feed "grippers" are held by spring pressure against small flat blocks, requiring the wire to be first pushed between and then carried and held by these spring clamps until cut off, the wear has much to do with the uneven shanks of the staples. When grooves have been worn in the feed-blocks, these should be ground out. If the wire can be pulled *backward*, those parts should be renewed. The cutter and tube should be kept ground and free from nicks. These parts should always be so closely fitted that no burr is formed on the end of the wire when cut off. The former and driver should be free from grit; sometimes small pieces of wire become lodged in the grooves, causing trouble. If the corners of driver become worn, rounded or chipped, the stitches will have a hump at the bend. Some wire is spooled so badly that it must be curved back by the straightener in the machine before an even staple can be formed. If an excessive amount of dross and hair shavings pile up around and under the feed, the wire is faulty in the tinning. The clinchers should never be oiled, because that will only help to cake the paper dust that fills up in there. They should be cleaned frequently and when badly indented they should be replaced by new ones. A machine should not be run unless it is in good order, because it may

grind and wear until it is unfit to do good work thereafter.

The Smythe sewing machines should be looked over every morning when in use to see that the arms are not slamming nor any parts loosened up. The arms should be run up by hand, slowly, until level with the presser-bar to see if they are horizontal. If the ends droop they should be raised until level. The lower disk on which the arms rest is hollow below and contains four extension screws; these can be turned by fitting a pin into the holes provided and turned in the direction necessary to raise or lower the pitch of the arms. Sometimes the arms become bent, especially if books containing thick and thin sections are sewed. To straighten them it is best to take them out and by tapping the bent part with the hammer, using the bed of the board-cutter or similar flat and firm surface, they can easily be brought back to their normal shape. As the arms contain many delicate parts, care must be taken not to indent or otherwise injure them. The arms should be well oiled and wiped off and all the dross shaken out, which can be done by working the punches while holding the arms inverted. If the loopers do not hold the loop long enough, or if they pick up double loops, the individual loopers should be adjusted or the whole looper-bar can be drawn to left or right by means of the screws at the right. Sometimes a looper has to be taken out and bent a little in order to go back far enough to clear the loop. Twine can be used in either of the Smythe models, but it is necessary to saw the books deep enough for each of the twines. To use twine in the No. 4 or similar models, it must be wound on the reels provided for tape. In this instance, however, the disks are moved closer on the reel pins. The two hooks in each needle plate are moved in as near the center as the slots will permit; the punchers remain in the same slots always. One twine can be set in the center of *each* needle plate or in the two inside ones, in fact anywhere to suit the binding. The process thereafter is exactly the same as when using tapes.

Every operator of a power machine should oil and clean up the machine before starting, and be careful to see that all lugs, bolts, nuts or screws are tight in the working parts. Most breaks or accidents are caused by neglect to do this. The greatest danger to folding machines comes from clog-ups, and on that account such machines must be constantly watched even when provided with automatic feeders.

Automatic paper-feeding machines are principally of two types — those that pick up and push the sheets, like the Dexter and the Fuller, and those of the combing-wheel variety, such as the "King" and the "Cross." The pick-up and push type of feeders have two pushers, each of which is furnished with four push rubbers, which come in contact with the sheets in as many different places. To prevent injury to the printed surface, it is sometimes necessary to take the tension off the two inside push rollers of each pusher and then move them so that the two outside rollers strike in the margins. In such cases the machine will have to be run slower.

The combing-wheel type of machines can readily be set to run in the margins, but with soft stock, such as eggshell, etc., difficulty is sometimes found in their sinking into the comparatively soft pile of paper and revolving without advancing the sheets. With continuous feeders, using combing-wheels, this disadvantage is obviated, because there are but few sheets at a time beneath the wheels. One advantage of pile feeders, however, when attached to folding machines, is that the larger quantity of sheets which can be loaded at one time allows one man to attend to as many as four or five folders.

(To be continued.)



MACEDONIAN GOSSIPS.

WON'T BE HAPPY TILL HE GETS IT.

Thank you for the reminder. "You forgot it" is right. Send it along. Couldn't do without it, and like the baby in the soap ad. won't be happy until we get it.— *A. Park Dibler, Turtle Creek, Pennsylvania.*

Written for The Inland Printer.

THE STUDY OF ELECTRICAL PRINCIPLES SIMPLIFIED.

BY A. STAPHE.

NO. V.—MAGNETS.



IN concluding this series it is well to summarize and to concentrate attention on the purely practical phases of the subject. There are multitudinous directions in which the printer and photoengraver could utilize special home-made devices which involve electric principles, in the special placing of lamps, using miniature lamps for ordinarily inaccessible parts of machinery, thermostatic methods of automatic control for the purpose of keeping etching baths, etc., at uniform temperatures, and the employment of special magnets to control the release of camera shutters.

Many simple timing devices can be made that will of themselves close, open, or in any other way control any given conditions. It becomes important for the novice to pay heed to the details of magnet construction. Enough information can be acquired to be of very material assistance, without delving into purely theoretical questions.

In making magnets, it is of great importance to keep the magnetic circuit as short as possible and of as large an area as the space at one's command will permit, so that the magnetism induced therein, by means of the current of electricity which is flowing through the wire, which is wound on the magnet core, may be as intense as possible.

To explain what a simple magnet is like, it is best to consider a concrete example. Suppose we take a piece of round *soft* iron, ⅜ inch diameter by 2½ inches long, and place at each end an insulating head about ⅛ inch thick and 1½ inches in diameter; these heads with the piece of soft iron constitute a magnet spool, the iron being called the core. Any kind of thin insulating material is now wound around the iron to about 1-64 inch in thickness and then the magnet wire is carefully wound thereover, constituting the first layer; a piece of tough dry paper is next placed over this layer and a second layer over the paper, these steps following each other until the spool is filled.



Plate by The Inland-Walton Engraving Company. Grand Trunk Railway System.

AN ARDENT FOLLOWER OF IZAAK WALTON.

Algonquin National Park of Ontario.

The ends of the wire are tied fast to the spool, so that they can not be displaced or easily broken.

When a current of electricity traverses the wire, the iron core will become magnetic and to know what the magnet will do, relatively, as to strength of pull, etc., it is necessary to take the precaution to count the number of times the wire is wound around for each layer. Suppose there were 25 turns in each layer and a total of 10 layers was placed on the spool, then we would in effect have 250 single turns. Now, if one ampere of current was sent through this coil, its magnetic intensity would be represented by 250×1 or 250 ampere turns; one-half the turns would give only one-half the magnetic pull. If only half an ampere was to be used or available and the same pull was to be secured, the half ampere would require to circulate around the spool just again as often, or 500 times, so as to have $500 \times .5 = 250$, the same ampere turns. If this was to be done on the same spool, there would need to be wound on it a smaller wire, so that 500, instead of 250 turns could be put in the same space. Suppose, now, that instead of one or one-half amperes being available, two amperes could be secured, then our relation would become 250 divided by 2, or 125 turns, which $\times 2 = 250$ ampere turns, as in the two other cases; this wire is also to go onto the same spool, hence, since only 125 turns must fill the same space as 250 did in the first instance, the wire must be considerably coarser.

These three assumed cases will give a fair basis from which to reason out other combinations. It should, however, be remembered that the resistance of the wire on the different spools will vary according to the length and size of wire used, thus the 500-turn spool will have much more than the 125-turn, and by reason thereof a higher voltage will be required, should more than the stated amount of current be sent through the coil.

It is usual to place a pair of such magnets side by side and join them with a rectangular bar of iron, the keeper, which is secured to each core; at the free ends of the cores the lines of magnetism will stream from one to the other and at this point the movable armature is usually placed. The armature is a second piece of soft iron, the same size as the keeper; in fact, both bars must have a cross-sectional area not less than that of the cores. The two spools and keeper approximate a horseshoe magnet in shape, and when they are supported by the keeper on a suitable base, the armature attached to anything that one desires to move or operate and a spring placed so as to move the armature in reverse direction to the magnetic pull, one has a simple electro-magnetic device.

When the cores extend forward far enough to admit of a rotating armature to be placed between them, we have an electric motor or dynamo; when it is rotated by a current of electricity, it is a motor, and when it is mechanically rotated, so as to produce a current of electricity, it is a dynamo. In the one case it receives current and in the other it gives out current.

When an armature, such as mentioned in the case of a simple magnet, is connected so that the moment the circuit is closed by a switch the armature on being attracted by the cores itself, through a suitable connection, breaks the electric circuit, this will destroy the magnetism, and the armature will be pulled back by a connected spring, when it will again close the circuit, reëstablishing the magnetism, the magnetized cores pulling the armature the second time, causing it to break the circuit and indefinitely repeat these movements so long as the current is supplied and the switch is not opened. This is called a vibrator; it is used in bells, induction coils and some special systems of telegraphy.

(Concluded.)

A TRANSATLANTIC TELEPHONE.

While it might never pay to lay a telephone cable across the Atlantic, it would undoubtedly pay, and pay well, to lay a cable which, while being effective for telephone service, would also give much better results than are now attainable in telegraphy. The difficulty is, at present, not an electrical one, but a simple question of construction. The cable has to be sunk in two miles or more of water. It must, therefore, be able to bear a pressure equal to two miles of water, every thirty-four feet of which is equal to one atmosphere, or fifteen pounds to the square inch; this amounts to some two tons to the square inch at the bottom of the Atlantic, and it is a difficult problem to devise coils that will stand that enormous pressure. But this is simply a mechanical difficulty, not an electrical one. The electrical part of the matter is complete and perfect. Messrs. Siemens & Halske are hard at work on the mechanical problem; they are at present experimenting with a telephone cable under Lake Constance, with a stretch of some fifteen or twenty miles, and a very considerable depth of water. If they succeed, the next step will be a series of telephone cables between England and the Continent, where there is nowhere any great depth of sea.— *Charles Johnston, in Harper's Weekly.*

NEVER TOUCHED HIM.

"This is absolutely the worst stuff I ever read," said the magazine editor, handing it back.

"Then you must be a new man," said the caller, folding up the manuscript with the utmost unconcern and putting it back into his pocket. "I've tried hundreds of worse things on this same magazine. Warm afternoon, isn't it? Good day." — *Chicago Tribune.*

INK REDUCER.

An ink reducer that is said to have proved satisfactory is composed as follows: Sulphuric ether, 2 ounces; oil of wintergreen, 1¼ ounces; white kerosene, 5¾ ounces. Put into a bottle, well corked, using sparingly. It is economical and gives good results.— *Exchange.*

Written for THE INLAND PRINTER.

THE MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

BY PHILIP ZACE.

NO. VI.— DOUBLE-SIXTEEN BOOK AND CATALOGUE FOLDERS.

A GENERAL description of the double-sixteen and the range and character of its products is set forth in the first article of this series. The convertibility of this machine is limited and the adjustments consequent upon making changes from one class of work to another are few. The adjustment of grippers, registering devices, stop gages, blades, rollers, etc., have been described in connection with single marginal machines. The foregoing instructions in relation to the setting of these devices are also applicable to the double-sixteen book folder in most instances. Only such things as relate particularly to the double-sixteen machine will be taken up here.

The adjustment of the Dexter double-sixteen to fold a sheet of two consecutive signatures of sixteen pages each will receive first consideration. This can be more clearly demonstrated by presuming that the machine is already set to fold a sheet 32 by 44 inches, and that the operator wishes to extend the folder to handle a sheet 38 by 50 inches in size. After the extension of the guide and tongues on the feed-board, the side-registering gripper will require first attention. There is a graduated scale engraved on the bar to which the first-fold rods are fastened. Loosen the nut and slide the gripper on the rod until the indicator points to 50 on the scale. The gripper must lay in the position of its full backward stroke when the operator sets the device and tightens the nut. At this point the cam roller is on the high part of the cam. If this adjustment should be made while the wheel is riding the low part of the cam, it would throw the sheet an inch or more out of register.

Now the operator's attention should be directed to the perforators. There are two of these, each supported rigidly on a bracket attached to the carriage, and arranged to come in contact with the grooves in the first-fold roller. Loosen the supporting bolts with a wrench so that the perforators will drop down and out of contact with the roller. This must be done before the operator moves the carriage, for it will be understood that the perforators are attached to and move with the carriage, while the fold rollers remain stationary. It is obvious that if the carriage were moved while the perforators are resting in the grooves, considerable damage would be done to the knurled surface of the rollers and to the perforator as well. The bracket may be broken off and the device damaged beyond repair through carelessness of this kind.

The carriage must now be moved to extend the machine the long way of the paper. This adjustment is made with the crank at the rear of the machine. There is also a graduated scale and indicator fastened on the bracket which holds the second-fold rollers. Turn the crank until the indicator registers 50. The operator must make this adjustment while the machine is running at low speed. This is because the tape-carrying rollers remain stationary while the carriage moves laterally. By running the machine slowly, the tapes will wind along the surface of the fold roller and adjust themselves automatically. To attempt to move the carriage while the machine is not in operation would strain or break the tapes.

This done, the perforators will require to be adjusted to the proper grooves in the fold roller to cut the heads of the folded sheets exactly in the center of the margins. For this purpose the fold roller is supplied with two grooved sleeves, one on each side of the central and stationary cutting knife. This cutter is always in the center of the machine, immovably bolted to the frame; not to the carriage, as in the case of the perforating devices. This knife separates the sheet into two signatures. The sleeves have a sliding play of about two inches on the roller. Move the sleeves so that the grooves will conform to the perforators. To do this the operator should get under the machine and eye up the alignment of the grooves with the cutting wheels. This adjustment must be made exactly.

Now crease the sheet in the center and run it up to the first-fold stop-gage. Recede the stop gradually with the stop-crank, which is bevel-geared to the stop-bar, until the knife hits the crease in the sheet. Then run the sheet through to the second-fold stop and recede it in like manner until you think the crease is parallel with the third-fold knife. Continue the sheet from the second fold to the third-fold stop and then into the packing box.

This completes the extension of the machine to the two dimensions of the sheet. The two outside tapes which carry the sheets to the last fold should be moved up close to the edge of the folded paper to keep the sheet from sagging down.

If the machine is properly timed, the outside signature, or the one farthest away from the gripper edge, will enter the third-fold rollers first, followed immediately after by the signature next to the gripper side of the machine. (This relates to folding sheets of two continuous signatures of sixteen pages each.) Accordingly, the inside or off sixteen has some distance to travel laterally before it reaches the third-fold stop. This naturally allows room for play, or affords a chance for the sheet to move away from the gage. To

overcome this trouble, all Dexter double-sixteen machines are provided with a "header-up" or a kicker which operates close to the third-fold stop. This device has a reciprocating motion, and by this means strikes or moves the two signatures into proper register. The "header-up" is timed by a double-faced cam, one surface carrying the third-fold blade cam roller and the other the cam roller, which operates the arm lever of the kicker.

The distance between the two incoming signatures and the relative interval between the forward movement of each is timed by the second-fold cams. Two of these, one for each signature, are arranged on a revolving shaft at the rear of the machine.

The entire adjustment to convert two continuous signatures of sixteen pages each into one signature of thirty-two pages, by the well-known method of inserting, is accomplished through the proper timing of the second-fold cams. As in folding two separate signatures, both sheets, now separated, run down to their respective second-fold stops. The knife close to the gripper side of the machine should come down immediately on that half of the sheet. The adjustment must be made so that the blade will not lose the least bit of time.

The blade which tucks the off signature, or the one farthest away from the gripper side of the machine, must be timed so that it will hesitate long enough to allow the two signatures to meet at the third-fold stop. Always move the cam when the cam roller rides the high part of the cam wheel. If you move the cam roller while it is in the groove, you are apt to shift it either way. The cam on the gripper side of the machine must always be set faster than the off cam in folding inserted work. It must be understood that each of the signatures to be inserted is carried by its own set of tapes. The signature next to the grippers is farthest away from the third-fold stop, yet it must reach it simultaneously with the off signature, where both sheets are tucked at the same time by the third-fold blade — right-hand signature underneath, the other signature on the top.

Stonemen, who are not familiar with these features of the inserting mechanism, frequently transpose the two halves of the two signatures in the make-up, which necessitates inserting by hand.

Remember that the more time you allow between the two incoming sheets the better. If the first-fold slot crinkles the folded edge of the sheet, the trouble might be due to the improper adjustment of the slot bars. See that they are set the same distance apart at both ends.

In folding very thin paper, it is essential for the sheet to travel over a substantial bed in every plane of the machine. Put in as many first-fold crossbars and tapes as possible to prevent sagging. It is even necessary to support the sheet with wires or strips of zinc when the paper is very limp and thin.

If there is too much friction brought to bear on the sheet as it is conveyed to the third-fold rollers, this will interfere with perfect folding when thin paper is used. To overcome the trouble, remove some of the idlers and relax the tension of the spring shoe fastened to the third-fold stop. This device is designed to prevent rebounding of the sheet when it strikes the third-fold stop. The tension is adjusted with a screw.

Do not set the crossbar on top rod too far from the edge of the sheet on the gripper side. This causes the paper to sag between the tape and the bar as the gripper makes its forward stroke. Frequent clogging of the machine at the first fold may be attributed to this cause.

Set the machine all around before making the adjustment of the automatic pointing devices. Then run a sheet into the machine up to the stop and to the point where the side gripper engages it and draws it sidewise to its full extent. Move the points into the slits with the two cranks — one for each point, located on the sides of the machine. For ordinary work in which the fold is regulated entirely by the margins of the paper, the stop gage and the tension of the connecting springs are locked with a collar and set-screw attached to the spring arm. When automatic points are used, the tension of the spring is released and the stop-bar is thus converted into a receding gage. The stop-bar cam wheel must be timed so that the gage will recede immediately after the side-gripper has finished its backward stroke.

When the machine is converted from inserted work to fold consecutive signatures of sixteen pages each, the third-fold rollers must be set closer or regulated to the thickness of the folded signatures.

(To be continued.)

LOW RATE — LOW QUALITY.

The *Youth's Companion* recently sent out a circular to advertisers, from which we quote as follows:

"It has recently come to our attention that one of the largest high-grade advertisers in the United States dropped from his list one of the leading publications because the publication was offering its subscriptions at so low a rate that, in the advertiser's opinion, the quality of the circulation could not be commensurate with the rate charged. It seems to us that, more than ever before, there is a general interest among advertisers in the methods employed by the different publications for getting circulation." — *Mail Order Journal.*

GIVES PLEASURE AND PROFIT.

I find that THE INLAND PRINTER is the best printers' journal that I ever had the pleasure of reading.— *Charles A. McClure, Newton, Mississippi.*



Plate by The Inland-Walton Engraving Company.

ALONG THE NANTAHALA.
APPALACHIAN NATIONAL PARK.

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(Entered at the Chicago Postoffice as second-class matter.)

A. H. McQUILKIN, EDITOR.

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NEW YORK OFFICE: Morton building, 110 to 116 Nassau street.
H. G. TICHENOR, Eastern Agent.

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THE INLAND PRINTER is issued promptly on the first of each month. It aims to furnish the latest and most authoritative information on all matters relating to the printing trades and allied industries. Contributions are solicited and prompt remittance made for all acceptable matter.

SUBSCRIPTION RATES.

One year, $3.00; six months, $1.50, payable always in advance. Sample copies, 30 cents; none free.

SUBSCRIPTIONS may be sent by express, draft, money order or registered letter. **WE CAN NOT USE CHECKS ON LOCAL BANKS UNLESS EXCHANGE IS ADDED.** Send draft on New York or Chicago. Make all remittances free of exchange, and payable to The Inland Printer Company. Currency forwarded in unregistered letters will be at sender's risk. Postage stamps are not desirable, but if necessary to remit them, one-cent stamps are preferred.

Foreign Subscriptions. — To countries within the postal union, postage prepaid, three dollars and eighty-five cents, or sixteen shillings per annum, in advance. Make *foreign* money orders payable to The Inland Printer Company. No foreign postage stamps accepted, and no attention will be paid to postal-card requests for free samples.

IMPORTANT. — Foreign money orders received in the United States do not bear the name of the sender. Foreign subscribers should be careful to send letters of advice at same time remittance is sent to insure proper credit.

ADVERTISING RATES

Furnished on application. The value of THE INLAND PRINTER as an advertising medium is unquestioned. The character of the advertisements now in its columns, and the number of them, tell the whole story. Circulation considered, it is the cheapest trade journal in the United States to advertise in. Advertisements, to insure insertion in the issue of any month, should reach this office not later than the eighteenth of the month preceding.

In order to protect the interests of purchasers, advertisers of novelties, advertising devices, and all cash-with-order goods, are required to satisfy the management of this journal of their intention to honestly fulfil the offers in their advertisements, and to that end samples of the thing or things advertised must accompany the application for advertising space.

THE INLAND PRINTER reserves the right to reject any advertisement for cause.

Single copies may be obtained from all news-dealers and typefoundries throughout the United States and Canada, and subscriptions may be made through the same agencies.

Patrons will confer a favor by sending us the names of responsible newsdealers who do not keep it on sale.

FOREIGN AGENTS.

W. H. BEERS, 170 Edmund street, Birmingham, England.
W. C. HORNE & SONS (Limited), 5 Torrens street, City Road, London, E. C., England.
JOHN HADDON & Co., Bouverie House, Salisbury square, Fleet street, London, E. C., England.
RAITHBY, LAWRENCE & Co. (Limited), Queen street, Leicester, England.
RAITHBY, LAWRENCE & Co. (Limited), 1 Imperial buildings, Ludgate Circus, London, E. C., England.
PENROSE & CO., 109 Farringdon Road, London, E. C., England.
M. P. McCOY, Phoenix place, Mount Pleasant, London, W. C., England.
WM. DAWSON & SONS, Cannon House, Breams buildings, London, E. C., England.
ALEX. COWAN & SONS (Limited), General Agents, Melbourne, Sydney and Adelaide, Australia.
COWAN & Co., Wellington, New Zealand.
F. T. WIMBLE & Co., 87 Clarence street, Sydney, N. S. W.
G. HEDELER, Nürnbergerstrasse 18, Leipsic, Germany.
H. CALMELS, 150 Boulevard du Montparnasse, Paris, France.
JOHN DICKINSON & Co. (Limited), Capetown and Johannesburg, South Africa.
A. OUDSHOORN, 179 rue de Paris, Charenton, France.
JEAN VAN OVERSTRAETEN, 8 rue Joseph Stevens, Bruxelles, Belgium.

EDITORIAL NOTES.

ACCORDING to Government reports, there isn't a great deal of difference between the formula for printers' rollers and that of some of the canned-food "dainties."

THOSE who intend to make an effort to secure new business when the summer dulness passes should take their positions in the field now and make their intentions known to the buyers of printed matter.

HARD on the heels of a day-and-night bank, an English processwork and electrotyping concern advertises that it is open for business at all hours. Is this prophetic of all-night printing-offices and "tags" like "Our type and machinery never sleep; the door key is lost"?

ONCE upon a time there was a printer who, on being asked to estimate on the official printing of a neighboring town, refused, saying that those who paid the taxes should do the work. To such an old observer and chronicler of craft happenings as Frank Colebrook, he is unique; he was also apparently a Quaker of the old school and — he's dead.

THE secret of success in productive enterprises is said to be minimum cost. This does not — and should not — necessarily mean low wages and long hours. Many elements enter into the problem, and among them are well-arranged and healthful workrooms, modern machinery and useful material properly placed. These, with satisfied labor, are dividend-bringers.

ALMOST any person can secure plenty of work, but it requires business capacity to get it at a figure which will permit of its being turned out at a profit. Don't hesitate to ask a fair price for what you do, and also to impress upon your customers the fact that the standard of work is improving, and if they wish to keep up with the procession they must improve the quality of their "literature," paying an increased price for it, and that their compensation will be in the resultant increment of trade.

THE systematic effort to augment the library at the Union Printers' Home has been rewarded with wonderful results, but not more than the Home and the energetic boomers of a full library deserve. It is planned that the movement shall reach high tide this month, during the convention of the International Typographical Union. Every admirer of this unique institution is

requested to send a book to the Home — and send it in time to reach its destination during the week of August 13 to 18. The book-giving scheme had its origin in a suggestion that each delegate donate a volume, and has expanded until the prospects are that the Home library will be enriched by several thousand volumes, many authors and publishers being among the hundreds who have aided the commendable project.

PROMPTED more by a wish to aid readers who desire to "branch out" or make a change than to "deliver the goods" to advertisers, we direct attention to THE INLAND PRINTER'S "Want Advertisements." In all sincerity, the craftsman who feels the desire for change or expansion stealing o'er him fails to do himself justice if he does not consult those interesting pages. Through them many have found not only profitable situations and good investments, but the answer to the perplexing question, "Which way out?" And what these pages have done, they will do in a multiplied measure.

IN the correspondence department of this issue is a communication on the subject of issuing souvenir books in connection with conventions, which we commend to the consideration of the Typographical Union's convention. Our correspondent has had something to do with publishing at least one souvenir, but has never been "held up" — as he terms it — for an advertisement or subscriptions, so his strictures are not penned under a smarting sense of having been "done" in a deal. He maintains that the reputation of the International Union is injured by the custom, and we are sure his fellow members would agree with him if they knew how advertisers regard it. To allow its name to be used, however remotely, with money-making schemes of this character is incompatible with the traditions of the leading union of the craft.

WHEN one is devising "trade-bringing literature," he should never forget that publicity is not necessarily good advertising. The former lets people know who and what and where you are; the latter induces — all the better if it compels — the prospective customer to drop around and give you a job. There are nice distinctions in this, governed largely by the nature of your wares and the character of the field to be covered. The man who contemplates printing a catalogue or pamphlet is not impressed by your success as a printer of visiting cards and wedding announcements, and to bombard him with specimens of such work at that time is worse than a waste of energy — it may create a prejudice against you. Lack of discrimination in such matters is why so much literature misses the mark. It is mere publicity — dress parade, not real advertising — the essence of good business.

THESE are the days when the doctrine of understand your customers' wants and needs is preached without ceasing, and a good doctrine it is and worthy of more honored observance than has been its portion. There are the papermakers, for instance; how little they seem to concern themselves about the trouble their product gives in the pressroom. The gentlemanly salesman puts on his most imposing worried look — mayhap makes copious notes — while listening to tales of lost time and exasperated tempers, but the cause of complaint is like unto the Tennysonian brook. Perhaps the salesman forwards the plaint, and perhaps he does not, for it is his business to sell goods, not to make them. It is also possible that the fault can not be remedied, but we would be more satisfied of this if the papermaker were to wrestle with the problem at first hand — find out what the pressman wanted and did not want — and then tried to cope with the situation. If the paper man were to come in from the woods and up from the water side and find what is the matter with his product, he would avert many maledictions and make for himself a crown of gold.

THE iconoclastic spirit of the age grows apace, and now the workman who goes about his duties singing or whistling his merry roundelay is declared to be a gold brick as an employee. The *Washington Star* afforded space to "an employer of a large number of men" who stamped the life out of the old saws which averred the "whistling workman is the best" and the "singing cook makes the best sauce," following it up by these ruthless comments: "When a man is not working, whistling or singing produces a certain amount of mental relaxation; it denotes a certain vacancy of mind. It is impossible for a man to whistle or sing if the mental faculties are at all absorbed in work. It requires mental concentration of more or less effort to turn out good work or to produce satisfactory results in any calling. Whistling interferes with this concentration, though the concentration may, by reason of a perfect knowledge of the work being turned out, have become mechanical on the part of the workman. The singing or the humming of a tune produces still greater mental vacancy. It is in these moments that workmen make mistakes, often costly ones to themselves or to their employers." Whistling is an intolerable nuisance, and is not audibly indulged in by the wise during the working hours, but grown men are generally "feeling fit" when

the whistling or humming mood is on them — and that is when they will face and dispose of any problem that fate sets before them. Our critic talks like a dyspeptic pessimist, for those who have whistled and hummed will swear on a stack of Bibles that what he mistakes for "vacancy of mind" is freedom from carking care, and ability to devote the entire human machine to the matter in hand, should occasion require. And the face that beams and the eyes that dart self-satisfaction



Photo by E. M. Keating.

A HUNTER'S SHACK IN COLORADO.

and happiness, while tongue and lips quiver with the desire to hum a joyous ditty, radiate sweetness and light to the gloomy-minded, making them more fit to do battle with drudgery. Great accomplishment seldom goes hand in hand with glowering mien and furrowed brow in the average man, for they denote worry. Better even the whistling fiend occasionally and the humming worker than a room full of glum ones, who depress and retard, rather than cheer and enthuse.

In the not long ago, when a citizen accepted credentials as Ambassador to the Court of St. James, his friends who were wise in a political way were not overjoyed, for they knew he would make a speech that would stamp him Anglomaniac, a supposedly fatal label in the eyes of the then electorate. Ambassadors Lowell and Bayard were conspicuous examples of this sort of thing, which did not indicate apostasy on the part of the luckless statesmen so much as it reflected the attitude of mind of the people, for what could be said in Paris with perfect safety was akin to treason if voiced in London. Times have changed — and for the better apparently. Ambassador Reid, who is editor of the New York *Tribune* when not engrossed in serving his country, recently made a speech to newspaper men in London, in which he is reported to have said some astonishing things about that vaunted American institution, the daily press. Far away from the influences of classic Park Row, the Ambassador tells John Bull that while he was adopting some American ideas about newspapers, he should curb his admiration for American slang, "otherwise there may come a time when the vocabulary may be limited to two or three hundred words — and most of those no words at all." Among the elect

on this side of the Atlantic, it is customary to affect a mild disdain for the British newspaper on account of its alleged dulness and lack of enterprise. The Ambassador displayed the other side of the shield, and after complimenting the British press on its character, said: "In reading it one felt always its responsibility and its respectability, and gained the impression that it was sincerely desirous of finding out and telling the truth; and all this with a proper regard for personal rights and, above all, for the inalienable human right of privacy. One could not always say the same of the newspapers of some other countries." But this is not all; he told his English auditors that as an American he might well say: "If you knew more of the press that you do not have, you would perhaps have a greater appreciation of the press that you have." This is a far cry from "My country (and its institutions) right or wrong," but Mr. Reid will not be denounced for his criticism. And this is partly because he spoke on a subject on which he is an admitted authority and partly because the majority of his patriotic countrymen deplore the spirit of recklessness and penchant for gossip-mongering which characterizes the American daily press. Coming from the dean of the profession, Mr. Reid's tribute to the British press will cause many to revise their opinion of John Bull's mental breakfast food.

THE NATIONAL LEAGUE OF AMERICAN PRINTING PLANTS.

THAT the suggestions of Mr. Putnam Drew of plans of organization in which all printers, large and small, could unite, have borne good fruit there is ample evidence in letters received from many sections. The Ben Franklin Club, organized June 14, 1906, in Chicago, through the efforts of Mr. Fred E. Wolff, editor and proprietor of *The Drop of Ink*, has made a most promising start, based largely on the principles enunciated by Mr. Drew, namely, that there is urgent need for an association of printers on a more comprehensive plan than has heretofore been attempted. It must be distinctly understood that there is no intent to in any way nullify or neutralize the older associations in the printing trade. The aim of the new organization is to do helpful and constructive work for the betterment of the trade, while at the same time preserving the individuality and initiative of the individual members. This is a platform which must appeal to every printer, and the large and enthusiastic meeting of the club which was held at the Sherman House, Chicago, on the evening of July 12, amply corroborated this view. About one hundred and fifty were present and over forty new members were voted on and accepted. The officers of the club are: W. J. Hartman, president; T. H. Faulkner, vice-president; C. H. Gallion, recording secretary; H. J. Adair, treasurer; William R. Kerwin, sergeant-at-arms; organizer, Fred E. Wolff. The board of directors: J. C. Ward, E. F. Breyer, H. P. Springs, C. H. Wells, G. G. Martin, J. C. Clark.

While the club has been organized as a purely local association, there is evidence from the speeches and expressions of views offered at the meeting that its work will be extended until it becomes national in scope. The vigor and aggressiveness of Organizer Wolff holds out much promise for that consummation.

Printers generally are cordially invited to advise the organizer of their desire to coöperate in this work.

PLATES HELD AT OWNER'S RISK.

THE liability of printers for electrotype and other plates left in their care has been fixed by the decision of a judge of first instance in the suit of Bullen vs. Swan Electric Engraving Company in an English court. The gist of it is that if the printer takes such care of the plates as a reasonably prudent man would take of similar things of his own, he is not liable if they should be destroyed, stolen, or lost without any fault on the part of himself or his servants, though it is not enough simply to say that they were put away in a cupboard or on a rack and now can not be found. The facts were that several years ago the plates had been made by the defendants to the order of the plaintiff, and the defendants had printed sets of illustrations from them and had delivered the prints to the plaintiff, but in accordance with custom had retained the plates, which they had stored in a cupboard kept under lock and key by a storekeeper. In 1903 it was discovered that some of these and other plates were missing, and this was after a great defection on the part of some of their employees. The defendants had made no charge for storing or taking care of the plates and the court gave judgment in their favor.

MONOPOLY IN PRINTING.

A GENTLEMAN writing to the trade press is alarmed because he fears "the printing business will soon be in the hands of a few," as the land of England is. He cites the purchase of eight thousand acres by a few men who intend to make a hunting preserve of it, and then gives vent to this lamentation: "The same idea is in the printing trade in a different form, but it acts the same for the rest of us little fellows. Take label printing: Who can compete with the big houses that make it a specialty? None of us. So we don't get

any label work. Take envelopes: Where is the average printer going to get jobwork to do envelopes when customers can buy them printed for less than he, the printer, can get them blank? No place that I know of. Take catalogues: Orders for these fine illustrated books of to-day are going more and more surely into the 'print-factories,' where they can be done for less money than the less equipped office can afford to do them as well for. What's going to be the upshot of all this sort of thing I ask? Pretty soon there won't be any printing jobs let out to a printer that isn't a factory. Miscellaneous little jobs we do and lots of us don't get a living out of what's coming, let alone consider what's going. Is it all going — into the hands of a few big chaps?"

Those whose vocation it is to study economic conditions tell us that such a tendency merely proves that the big shops are the most beneficial to society, while the socialist philosopher exults in the theory that the supervision of production will inevitably gravitate into the hands of fewer and fewer men, until in self-protection the people will have to establish the much-touted coöperative commonwealth. Even though industrial history of the last decade reads not unlike socialist prophecy of the sixties, our friend and those who think like him should not become pessimistic. The blight of near-monopoly has not fallen over the printing trade as it has over some other industries. Cheaper and quicker transportation and the necessity for costly machinery all tend in that direction, but the principal reason for the establishment of large offices and the specialization of output is the increased volume of work to be done. The small office is compelled to cater to small work, and this is nearly always of such a character that the near-by printer will get it. This class of work is increasing as rapidly and in as great volume as the larger kind, and herein lies the hope of salvation for the "small" printer. That which he can do best he should make a specialty of, and then he'll be on the way which leads to a specialized print-shop. It is well to remember that the owners of large offices aver that the "little fellows" stand in the way of living wages and good profits. That may be so, and perhaps the big fellow can afford to argue the question, but the



Plate by The Inland-Walton Engraving Company. WHIPPING THE STREAM. Grand Trunk Railway System.
Algonquin National Park of Ontario.

struggling little fellow can waste no time on such matters. If he would win success, he must not whine or complain about those who take business from him, but he must find out how they do it, and if it is due to their abundance of capital, then he should set his house in order for the execution of work which does not require more capital than he can command. During the growing years the young printer must be enterprising, always ready to tack so as to meet any favoring wind or avoid a squall, and every morning admonish himself to "Get busy!"

INJUSTICE IN PROPOSED COPYRIGHT LAW.

MR. S. H. HORGAN, art manager of the New York *Tribune*, and editor of the department of Process Engraving in THE INLAND PRINTER, is making a vigorous but almost single-handed fight against the iniquities of the proposed copyright law which narrowly missed being made effective in the recent Congress. In a letter to *Newspaperdom*, Mr. Horgan says: "Proprietors of newspapers should wake up. A new copyright bill has been concocted without consulting, as far as known, a single maker of newspaper illustrations, the result being that newspapers must either give up illustrating or be prepared to pay from $250 to $1,000 damages for many of the pictures they will publish.

"How is it possible, you will ask, that such a bill came near being law at this session of Congress? It is too long a story to be told here. The newspapers of the country had better get together in this matter as they will be in such a shower of copyright suits as to flood them. What are they going to do about it?"

Among the various clauses in the proposed law which are prejudicial to newspaper interests and which are distinctly inequitable, are the following:

Under the present law the proprietor of a photograph or negative can obtain copyright.

The proposed copyright bill (Section 37) makes the copyright a distinct property from the material photograph which is the subject of copyright. Thus the proprietor of a negative or photograph may have no right to reproduce it.

Referring to the applicant for copyright, the present law says:

"He shall on or before the day of publication in this or any foreign country deposit in the mail within the limits of the United States, a printed copy of the title of the photograph and not later than the day of publication deposit in the United States mail two copies of the photograph."

The new bill (Section 2) allows the photographer thirty days after publication of the work (photograph) upon which copyright is claimed, to apply for copyright. And (Section 15) adds: "If by reason of any error or omission he has neglected to do so within thirty days it is permissible for him to apply for registration within a period of one year after the first publication of the photograph."

The present law orders: "The photograph must be from a negative made within the limits of the United States."

The new bill permits the photograph or negative to be made in any part of the world, and apparently by a citizen of any country.

The present law says: "The notice of copyright must be inscribed upon some visible portion of the photograph or of the substance on which the same shall be mounted in the following words: 'Entered according to Act of Congress, in the year ——, by A. B. in the office of the Librarian of Congress at Washington,' or at his option the word 'Copyright' together with the year the copyright was entered, and the name of the party by whom it was taken out, thus: 'Copyright, 18—, by A. B.'"

The new bill allows: "The notice of copyright shall consist of merely the word 'Copyright' or the abbreviation 'Copr.,' or the letter 'C' enclosed in a circle, accompanied in every case by the name of the proprietor or by his initials, monogram, mark, or symbol," and this can be anywhere, on the front or back or even the edge of either the photograph or the mount.

Commenting on the proposed bill, Mr. Horgan says:

"Each one of these four sections in the new copyright bill relating to photographs has such skilfully devised changes in the present law as to give photographers largely increased opportunities for levying damages on the newspapers and all illustrated publications.

"Then the damages are defined by the new bill to include 'damages the proprietor of the photograph may have suffered,' plus 'the profits the infringer may have made,' together with $1 for every infringing copy of the newspaper made, sold, or found in the possession of the infringer, or his agents, or employees.' 'Such damages shall in no case exceed the sum of $5,000, or be less than the sum of $250.'

"The photographer is allowed three years after an alleged infringement to begin an action and 'in all recoveries under this act full costs shall be allowed.'"

NOT OFTEN ENOUGH.

I am sure if every printer realized what THE INLAND PRINTER meant to him he would not do without it. I know that is the way I feel. The trouble is it don't come often enough.— *W. A. Nicholson, Alameda, Saskatchewan.*

Written for THE INLAND PRINTER.

CROSS-LINED AKROTONES.

BY C. M. K.

AKROGRAPHY, the name given to that process of engraving which simulates the V cut of the wood-engraver, with all the admirable printing quality of that form of surface, yet which is produced mechanically, is made up from the two Greek words: *acro,* top; *graph,* to write, record or picture. Thus akrography literally means top picturing or top recording, from the recording sheet being placed on the top of the relief photograph. This method of engraving was described on page 845 of the March number and again on page 40 of the April number of THE INLAND PRINTER of this year. Acrography has been used as the name of a compressed chalk process, but in order to differentiate the process under consideration the letter "k" has been substituted for the "c," which makes the word representing the method Akrography, the machine an Akrograph and the product an Akrotone.

Long years of application worked out various phases of the machine, the chief intricacies being found in the mechanical features of the cutters. The process, as already stated, depends upon orthodox wood engraving practice, and at first sight it might be thought that this being so an ordinary wood-engraving tool or cutter could be used. These tools were, indeed, tried at first, but it was found that the rapid speed of the drum holding



FIG. 1.—Cross-line Akrotone at 120 lines per inch.

the photograph to be reproduced and its celluloid record shield soon wore away the sharp point of the hardest wood-engraving tools. This wearing away, though gradual, became *apparent* in the engraving quite suddenly, making the engraving uneven, the part executed by the worn tool having a much darker tone.

There is a prevailing impression that the process is restricted to single parallel lines. This is an error which the illustrated Fig. 1 plainly shows.

There are three sets of lines, two at 45 degrees and a third ruled horizontally. This means that the surface was actually gone over three separate times and as will be noticed not to the same depth. The lines occur at the rate of 120 per inch in all directions. A much more pleasing effect would have been secured if the horizontal lines bore the same relation to the diagonal ones that the number 70 bears to 99, then the interference would have been in harmony with the others and a better effect produced. About 85 lines per inch would have been near the proper relation.



FIG. 2. Single-line Akrotone at 283 lines per inch.

Before the first engraving was made a set of register marks were placed on the relief photograph and then before the celluloid sheet was removed from the drum slight scratches were made thereon, opposite the register marks of the photograph. This first engraving was made with the celluloid sheet and the photograph placed spirally on the drum leading toward one end. The celluloid was the second time placed on the drum in a spiral direction opposed to the first position and the relief photograph was again placed under the sheet and the sheet was drawn up tightly, making sure that the register marks of the photograph were in coincidence with the scratches on the celluloid, after which the second engraving was made. For the third set of lines the celluloid sheet was cut off just above and below the engraved space and the two portions cut off were cemented to the engraved portion on opposite sides at right angles to the original position. A piece of celluloid narrower than the space between the two edges of the cemented extensions and of a thickness greater than that of the two superposed and attached sheets was placed under the photograph and both under the engraving, again making sure that the marks were in register, when the third engraving was made in a manner similar to the previous two.

Under this system it is found impossible to invariably have all of the relief photographs present the *same* variation of thickness, and unless this variation could be compensated for it would not be possible to work over but a very small

range of conditions, but thanks to the possibility of readily changing both the number of lines and the angle of the cutter used (by selection from a standard set of angles) the apparent difficulty is quickly overcome. This was not so in the earlier experiments before tools and methods of cheaply producing the cutters were perfected; in fact the wonder is that any results at all were produced under the early experimental stages. Now automatic devices do what was then a most laborious and uncertain task. The angles were put on the tools by hand entirely, the operation being observed with an eye-glass while delicately rubbing the tool on an oil stone and carefully holding it at the proper angle. This operation had to be gone through for both sides of the "V," and more than likely by the time either operation was finished a nice little groove was worn into the oil stone and the angle was about anything one might guess at instead of the intended one.

Fig. 2 shows a souvenir of these days, an electrotype from a 283-line engraving of the originator of the Akrograph system, N. S. Amstutz, who reluctantly consented to the use of the "specimen" because of sundry defects in its execution, which, however, are only mechanical. The engraving is overcut in the extreme high lights, which causes the broken lines. A little irregularity in the ruling is also noticeable in the background. As stated, it is little short of marvelous that the results shown were secured under the conditions mentioned, especially when it is remembered that there are but three and one-half thousandths of an inch from the center of one line to that of an adjacent one. As near as it is possible to recall the data, the relief was about .0018 inch and the cutter angle to interpret the same at 283 lines per inch about 90 degrees included angle. It is a matter for congratulation to know that those days of difficult experimentation are over, and the finalities of the process must now be determined in the hands of actual users.

IRONY OF FATE.

A little puff was what he sought —
A little printer's ink.
He tried in many ways to land,
And yet, what do you think?
He failed to get it till he died
And quietly passed away,
When, to be sure, he couldn't read
The compliments next day.

— *Birmingham Age-Herald.*

A HIGH STANDARD.

I have been a subscriber of THE INLAND PRINTER for a number of years and will say that it is the most instructive, well-printed and entertaining magazine I have yet seen of the several other different books devoted to the printing art. I wish you continued success in your present high standard.— *H. K. Bacon, Oxnard, California.*

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. VI.— BY N. S. AMSTUTZ.*



IT is desirable to consider the theoretical aspect of tonal values and their interpretation, or rather, how near various practical reproductions come to the ideal requirements; by doing this, one can thereafter intelligently compare different systems and also know the variable factors of any given method and be able to weigh their importance in relation to theoretical standards.

Just what the relation between the extent of the optical stimulus imparted by an object and the subjective visual sensation carried to the brain bears on the general subject of tonal interpretation is not positively known; this phase of the subject is called the "psycho-physical" or "Fechner" law, which has been expressed in this way: "If the stimulus varies in a geometrical progression, the sensation will vary proportionately to an arithmetic progression." Fechner has stated the law in this manner: "The sensation increases as the logarithmic value of the stimulus."

According to this law, "things are not what they seem," for it is demonstrable with suitable whirling tables or disks that what the eyes are looking at does not excite the optic nerve to an extent that is commensurate with the actual tone values of the object. In testing out graded tone problems on a whirling table, the proportion of black to white has to be modified far beyond the seeming requirements, in order that the eye will receive the necessary stimuli to convey to the brain the sensation of a certain homogeneous gray.

To put it another way, there is a marked difference between an objective stimulus and a subjective sensation; suppose the case of a series of half-tone dots of definite area, what percentage of black do they represent to the visual perception and what is their value considered wholly from their relative physical sizes?

It is a question whether the effect noted on a whirling table, whereon black and white sectors of definite interrelated angular dimensions are put into rapid rotation to produce a specific gray tone is the same in its effect on the visual sensation as the combined stimulus of an aggregation of half-tone dots which are quiescent — not moving. There is some room for doubt on this point, because in the one case the stimulus is in motion and in the other it is at rest. It is a well-known fact that periodic visual impressions lose the

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.



Plate by The Inland-Walton Engraving Company.

Copyright, 1903, by N. Brock.

THE CLIFFS FROM CHIMNEY ROCK.

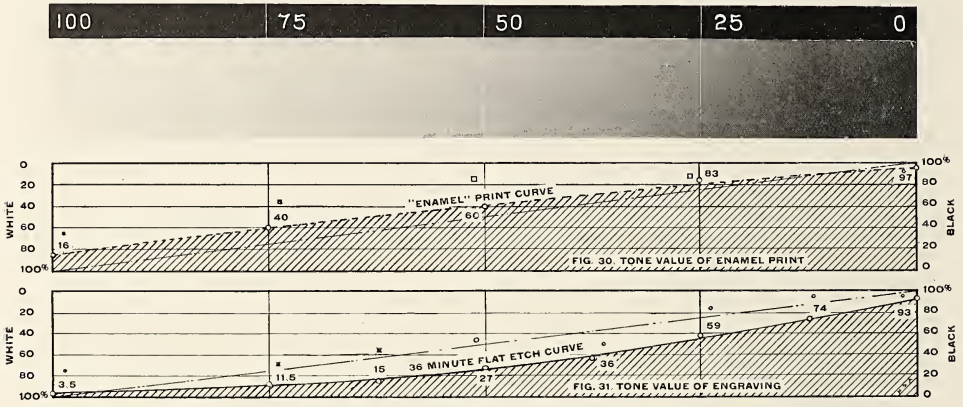
APPALACHIAN NATIONAL PARK.

identity of individual periods when they occur in less than one-tenth of a second, so that so far as the eye is concerned the effect is the same as though they had not been produced in periods at all and were simply *continuous* tones.

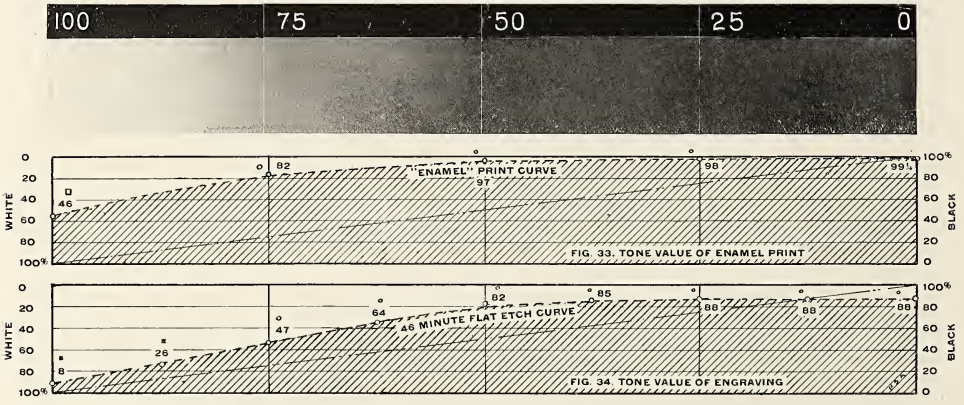
Under the conditions enumerated, the visual function is dominated by a lag, because the sensory impulses do not travel instantaneously; there being such a lag in relation to the speed of sensory travel, does not this predicate another lag — one as to the sensation of tone value; in short, does not the existence of the one coördinate with a possible existence of the other, so that gray tones require an excess of black, *only when the objective stimulus is in motion,* to balance the cerebro-optic undervaluation due to speed lag?

The effect of black and white areas of a definite relation to a unit is assumed to be different when the areas are in a state of rest, or when they are rapidly moving on a whirling table, hence the modifying effect, if any, of the "psycho-physical law" is left for subsequent analysis, and the arithmetic basis, straight line "curve," of tonalities is used in the diagrams.

As against this basis of tonal analysis, it is but just to quote Baron von Hübl, who, in his valuable book on Three-Color Photography,* on page 67, says, "a gray, for instance, composed of 3.5 parts of white and 6.5 parts of black, appears to our eye twice as bright as it ought to appear,



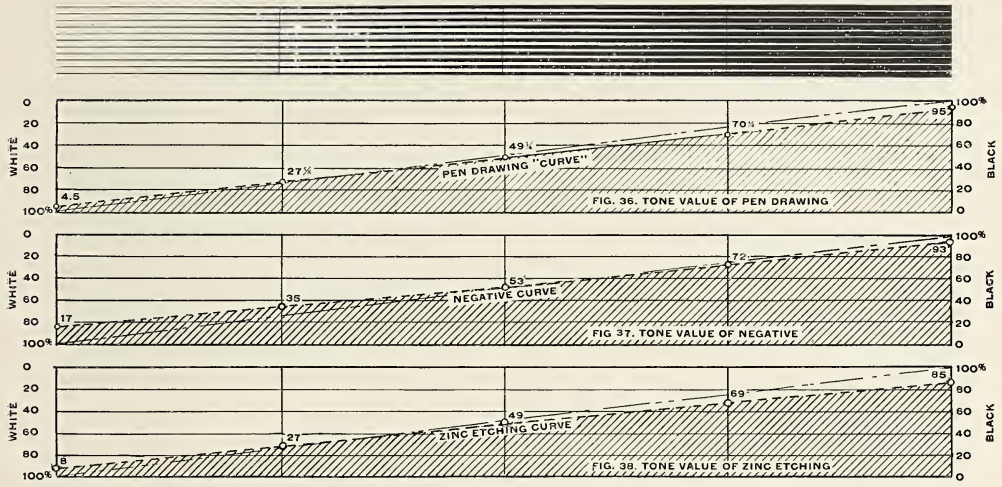
Figs. 29, 30 and 31, 150-line "light" half-tone tonal scale, showing the engraving, Fig. 29, at the top, with numbers representing theoretical percentages of white in an ideal tonal scale.



Figs. 32, 33 and 34, 150-line "dark" half-tone tonal scale, showing the engraving, Fig. 32, at the top, with numbers representing theoretical percentages of white in an ideal tonal scale.

* Translated into English by H. O. Klein and published by Penrose & Co., London.

and we are only impressed by one-fourth of the amount of black if this is present in equal quantities in a black and white mixture. It is possible that similar phenomena are noticeable in mixtures of black with other colors, but it must then also all the requirements of exactness, and it would seem that a purely optical translation of disconnected tonal dots or lines into continuous tone areas of the same value would eliminate the personal equation to a larger degree and produce



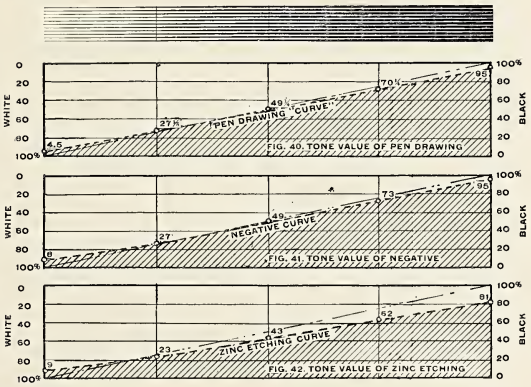
Figs. 35, 36, 37 and 38, 20-line pen-drawing and zinc-etching tonal scale. Fig. 35 is placed at the top.

be ascertained how much the rule is influenced by the luminosity of the color."

On page 66, the author also says, "a comparison between the tone of a ruled screen and the homogeneous gray of a color top mixture, directly confirm the 'Fechner law.' For this purpose a paper has been ruled with black lines of different thickness, representing five luminosities. The width of lines varied between 0.05 and 0.40 mm. and measurement of the width of the black lines and the white spaces made it possible to ascertain the luminosity of this screen, which has been imitated on the color top with the help of black and white sectors, the angle of which has been measured to ascertain the luminosity of the homogeneous gray.

"The screen tone has been viewed at such a distance that the lines were distinctly visible; and although the surface does not appear homogeneous, with a little practice and repeating of the experiment, a comparison between the two tones is quite possible. The objective luminosity of the gray on the color top is known to us by its composition, and the screen surface of the same luminosity represents the subjective color sensations."

This method of comparison does not fully meet truly homogeneous grays, which could be compared side by side in a photometer, with a known standard, without having any of the elements in



Figs. 39, 40, 41 and 42, 40-line pen-drawing and zinc-etching tonal scale; the zinc etching, Fig. 39, being placed at the top.

motion, as is necessary with a color top or whirling disk.

Experimentation along these lines is quite fascinating and many interesting phenomena are within the reach of any one who desires to see the blendings of colors, etc. If a medium weight

of cardboard is taken, a circular disk of about five inches diameter cut therefrom, a pin inserted at the center and different colored sectors pasted or painted on the disk, a simple device is secured by which various tests may be made. The pin is held, head down, so that the disk may be rotated by one hand while the pin is held by the other. The simple form of "whirling table" is only suggested for the most cursory examination.

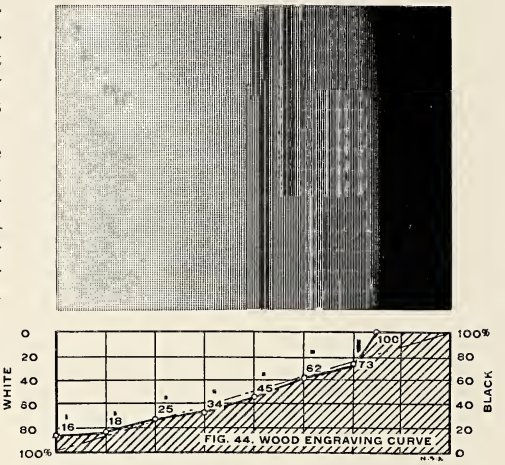
Several tonal scales are shown and the graphic curves are placed directly beneath them, in order that the values may be more easily noted in comparison with the specific region of the scale that is under observation, without trying to carry mental impressions from one page to another, as is the case when they are separated.

The reader may wonder how it is that the effects shown on the banded test etching of Figs. 25 and 26 (July number) can be produced by prolonged etching and the graded tone scale shown in Fig. 29 made by a straight flat etch of thirty-six minutes and still hold gradation in the "three-quarter" whites. The explanation is found in the fact that the etchings of Figs. 25 and 26 were started with the *same* size of O dots for all the bands, and Fig. 29 started with dots of varying sizes and shapes; hence the acid acting for the same length of time for all the dots produced a variable effect, and thereby secured tonal interpretation, while in the case of Figs. 25 and 26 the time was the changing factor and the sizes were respectively uniform to each other before the "biting" was commenced.

The various values of the tonal scales as to sizes of dots, etc., are not tabulated and their percentages of white and black only are shown in the graphic curves, so that the reader may become familiar with the shape of the tonal characteristic curves and therefrom more readily judge the practical relation of one scale to another; for instance, a comparison of the shape of the curve shown in Fig. 46 with that of Fig. 31 is most instructive.

Fig. 29 illustrates a 150-line tonal scale, bearing numerals along the top edge thereof, "0" applying to the "blacks" at the extreme right-hand edge, "25" standing for nominal ¼ white, "50" for nominal grays, "75" for "three-quarters" whites and "100" for the "whites" of the extreme left-hand edge.

Fig. 30 shows the "enamel" print curve of gradations, the diagonal line in this and all of the other figures represents the theoretical "curve," the areas *below* any of the curves represent blacks and the areas *above* represent whites, and the distance any point on any curve is above the bottom horizontal line indicates the per cent of black such point on the scale possesses, as is shown by the figures at the right-hand side of the graphic curves, which are marked "black"; conversely, the distance such a point is below the top horizontal line is indicative of the per cent of white contained in the tone gradation under question, the values of which are read on the left-hand sets of figures, marked "white." The small characters adjacent the several percentages of black, placed next to the points of the curves whereat



Figs. 43 and 44, wood-engraving tonal scale at a mean of about 65 lines per inch, Fig. 43 being at the top.

the measurements were made, show the kind of dots found; when open faced, they represent white dots, and when black, obviously, indicate black dots; these characters do not have any dimensional values, but only serve a pictorial purpose.

A careful study of Figs. 29, 30 and 31 with each other will be found both interesting and profitable. Fig. 30 shows the "enamel" curve generally above the diagonal line and Fig. 31 illustrates the engraving curve almost altogether below this line. The exceptions are found at both extremes of the scale, the dots of the blacks sending it below in the case of the "enamel" print and the dots of the "whites" causing it to rise above on the engraving curve. It may be assumed that if the enamel curve had been placed higher, through a darker negative, the etching would not have carried the engraving curve so much below the theoretical diagonal, but in so doing without making some compensation in the high lights, the dots in this region would have been too large, and in consequence considerably too dark, thereby materially lowering the brilliancy of the reproduction and seriously modifying the tonal values.

Fig. 32 is another graded scale similar to Fig.

29, excepting that it is pitched in a much lower tone, which carries the shadows unduly into the middle tones. This plate is also a flat etch, but of 46 minutes duration, which, owing to the smaller size of "enamel" dots and considerable aging between the production of the copper print and the etching, the dots were found to be much slower in "opening" than were those of Fig. 29. These two curves are principally above the diagonal line and to this extent show an excess of black in the gradations of Fig. 32, being almost uniform until "50" is reached, when a sudden transition sends the tone value along the steep incline toward the "whites." Figs. 33 and 34 are the graphic curves of Fig. 32, similar to Figs. 30 and 31. They are self-explanatory.

Fig. 35 shows a horizontal line tonal scale of about 20 lines per inch, reproduced as a zinc etching from a pen-and-ink drawing, comprising tapering black and white lines. Fig. 36 shows the tone value rising into the "whites" at the left-hand end and dropping into the "blacks" at the right-hand end of the scale, due to the presence of a black line in the "whites" and a white line in the "blacks."

Fig. 37 gives the tonal value of the acid resist print made on the zinc, and Fig. 38 shows the relation of tonal gradations found in the zinc etching.

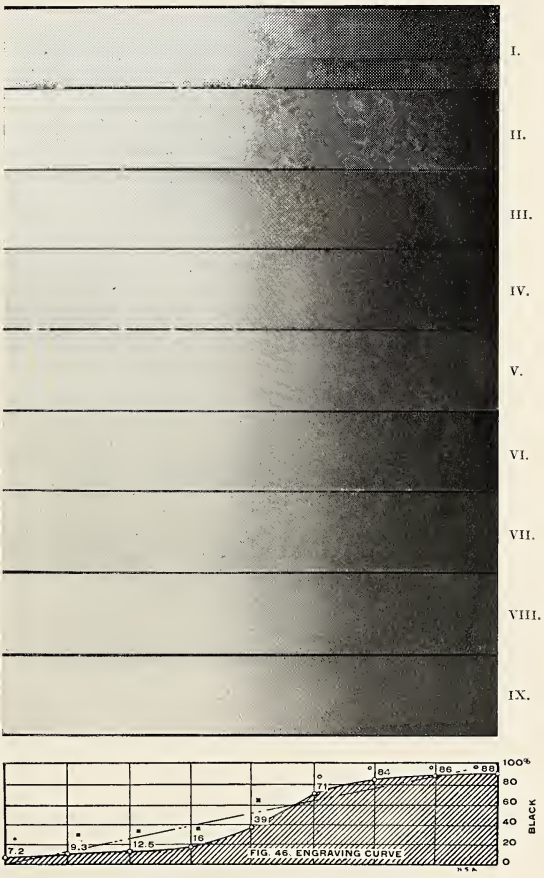
Figs. 39, 40, 41 and 42 show the same variations of condition as are found in Figs. 35 to 38, inclusive, the scale, however, being one-half the size of that shown in Fig. 35.

Figs. 43 and 44, respectively, illustrate a wood-engraving scale, formed with cross lines in the high lights and a graphic curve which very strikingly illustrates the sudden change from the dead black to the first tonal gradation. This scale is used through the courtesy of A. F. Wanner & Co., of Chicago. Adjacent the black it has 70 vertical lines per inch; in the high lights, 62, and running horizontally, 77 per inch. It is not intended as a true tonal scale and on account of the sudden transition mentioned it is of material assistance in pointing out the value of graphic curves because they assist the intellect, through the eye, in remembering the characteristics depicted thereby.

Fig. 45 represents a series of tonal scales at different lines per inch, shown by favor of the Suffolk Engraving and Electrotyping Company of Boston. I is at 65 lines per inch; II, 85; III, 100; IV, 120; V, 133; VI, 150; VII, 166; VIII, shown in graphic curve of Fig. 46 and IX, 200 lines.

Fig. 46 shows the gradations of VIII, which is representative of all the scales. The pictorial characters on the diagram also show the kinds of dots which comprise the scale.

This study of graded tonal values will, it is believed, be of considerable interest and profit to processworkers, who have much to contend with on account of the very large variation in quality of "copy," some brown, some red, etc. What a boon it would be if there was produced an automatic toning paper that would stop toning when a certain specific color value was reached! So much for facetiousness; but seriously, the great difficulty in turning out uniformity of work lies in the woful lack of anything approaching uniformity in the gaslight, silver or other printing-out papers. These differences of conditions, though



Figs. 45 and 46, half-tone gradations at various lines per inch. Fig. 45, the engraving at the top, and Fig. 46, the graphic curve of Scale VIII below the same.

hard, can to a large degree be modified by using specific means of compensation — such as multi-exposures with changed diaphragms or stops, etc. It, however, requires careful manipulation on the part of the camera man, and as heretofore pointed out, a collaboration between the etcher and photographer; without this there can not be that complete coöperation which is necessary to the satisfactory carrying on of any process business.

In the July number, the title to Fig. 27 contains a misprint; 1¼, 2½, 20 and 40 minutes refers to the time that the bands shown were etched, not photographed.

It is exceedingly interesting to note how the etching rate has affected Fig. 31, in comparison with Fig. 30. Suppose the acid action was uniform over all portions of the scale; then, if at the end of a 30-minute etch the tone values were all 15 per cent lighter, the engraving curve would have the same characteristics; that is, the same general shape as the one shown in Fig. 30, the only difference being that it would occur lower on the diagram, and by reason of this position indicate a corresponding increase of white and decrease of black; the right-hand end would drop below the diagonal line and show only 82 per cent of black. Such is, however, not the case, for the ○ dots of the blacks, through etching, have become 4 per cent lighter; the "25" square-shaped white dots have simultaneously increased in size and become round, so as to show an increase of 24 per cent of white; the "50" square-shaped white dots have gained even faster, for they show an addition of white amounting to 33 per cent, and have also changed to ○ dots; the "75" square-shaped black dots show a loss of black that aggregates 28.5 per cent, without materially changing their square shape; and the small square black dots of the "100" region have become ● dots through a loss of 12.5 per cent of black. To summarize, from "0" to "25" the change is 24 per cent; from "25" to "50," 33 per cent, an increase in rate of etching of 9 per cent; from "50" to "75," 28.5 per cent, a rate of decrease of 4.5 per cent, and from "75" to "100," 12.5 per cent, a decrease of 16 per cent. The rate for the first stage was 24 per cent, the second 9 per cent faster, the third 4.5 per cent slower than the second, and the fourth 11.5 slower than the third. These figures will assist in pointing out the great help a curve is, because it really pictures the figures, and by reason of its *peculiar shape*, the eye assists the memory to retain the differentiating values of the figures.

(To be continued.)

"Odds bodikins!" the proofreader cried,
"A bum proof, by my hali-
Dome!" So he reproved the kid
Who then reproved the galley. —*H. L. Shippey.*

Written for THE INLAND PRINTER.

SCREENLESS HALF-TONES.

BY N. S. A.



UCH publicity has been given to the newly (?) discovered Spitzertype method of producing relief engravings from photographs, without using the usual ruled screens in front of the sensitive plate of the camera. So many novel features have been ascribed to the process that it is of interest to consider the probable basis on which the method rests. The results published in Klimsch's 1905 Year Book, with a description that in some respects is vague, lead one to compare them to reversed photogravures etched for letterpress printing. Recent comparative specimens of Spitzertype and half-tones published in the *Archiv für Buchgewerbe*, of Leipzig, show the radical change of tonalities of the two methods when identical views are reproduced.

Spitzertype is the invention of one Emanuel Spitzer, an artist-humorist of Munich. An enthusiastic advocate of the process says that reproductions made by the ordinary half-tone method "are cold and without life, they reproduce the original without regard to the delicacy of the design; the screen covers all indiscriminately with its uniform web, giving the engraving a heavy and unsatisfactory appearance. The problem is to get rid of the screen."

Many more or less successful efforts have been made to this end. The Spitzertype according to *Public Opinion* consists in carefully coating a polished metal plate with bichromated gelatin on which the negative is placed and exposed to light, after which it is given an acid bath, as in ordinary plate-making, when it will be ready for mounting and for use on the press. An important difference between this process and the ordinary half-tone, however, consists in the fact that the new process utilizes a layer of gelatin of uniform thickness spread over the entire plate, which varies in hardness conformably to the different gradations of the negative, being the hardest where the light has acted the strongest. *Printers' Ink*, quoting *Cosmos*, says: The work of the acid begins at the dark portions of the plates and continues successively to the portions which are both the lightest and hardest, the complete operation being one of graduated baths. The superiority of the Spitzertype method lies in the fact that since the reproduction of the half-tones of the original is performed without the use of a screen, the problems which baffle the engraver are solved by this scheme in the simplest manner. The Spitzer process is also peculiarly adapted for color-work and when used for this purpose, the writer

says, the plates produce a picture clear and full of life.

Dr. Robert Defregger, in his article appearing in Klimsch's Year Book (1905) on "A New Halftone Method for Book Illustration," in quoting from the German "Patentschrift," says that the Spitzer process eliminates all screens, special graining of the copper plates, the use of asphaltum grounds, etc.

It is somewhat difficult to follow the steps of the process from the description given. Is one to infer that the gelatin film becomes reticulated automatically in proportion to the light action and that such reticulation immediately adjacent to the copper plate presents *separate* elements or points of hardened gelatin varying in size, with interspaces of soft gelatin separating them, through which the acid attacks the plate? The grain shown in the printed specimens does not seem to bear the characteristics of ordinary reticulation. It is not understood why such a veil of mystery should be cast around the descriptions and so much vagueness be indulged in.

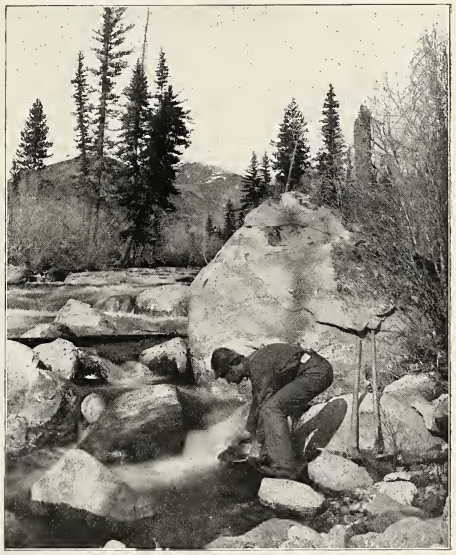
This phase of indefiniteness becomes the basis of all sorts of panegyrics, as witness: a certain newspaper manager of Chicago is said to have investigated the process in Paris and reported it to be entirely *revolutionary* in character, especially in relation to the quality of plates for magazines and color printing, adding that so far the process of making screenless half-tones for newspapers was not yet a success, but it was believed a solution would shortly be found.

One is led, from the views expressed by the expert and non-expert, to believe that there may be something of more than passing interest in the matter, but becomes annoyed in trying to localize the distinctive features. The disclaimer as to the use of asphaltum or resinous powders eliminates what is known as the Klic method of reproducing photographs as relief engravings, without the use of screens.

A recent number of the *Bulletin Officiel*, of Paris, gives publicity to an article by M. Ducourtioux showing two splendid relief engravings executed by himself *without using screens*. This French article is quite caustic and does not mince matters, and flays the alleged Spitzer invention for the arrogance of assumed originality in the face of the many years of superior photogravure work done by Parisian craftsmen, both for intaglio and relief printing. M. Ducourtioux, while conceding to the Germans credit for valuable work along photographic lines, yet reminds them not to forget that Daguerre, Gillot, Duc du Hauron, Cros and Lippmann are French names.

Dr. G. Aarland, of Leipzig, in the April number of the *Archiv für Buchgewerbe*, says the Spitzertype process has a limited field of application and the specimens he shows confirm his previous contentions that the method is weak in tonal interpretation, the shadows coming up harsh and the sense of distance or atmospheric value being almost entirely lost, and for this reason is of little practical value for colorwork. He also says that the natural grain methods have been well known for some years; their characteristics were referred to in Professor Husnik's handbook on Heliographie, published in 1878.

These misinterpretations of the differences between processes is a lamentable one which comes about through the fact that there is insufficient unison in nomenclature and a woful lack of understanding of the fundamentals which are common to all processes. From these grow assumptions — so-called "Yankee bluffs" — some wilful and many unconscious, misrepresentations and exaggerations, which make too large a drain on the time and energy of the busy man who must sift the grain from the chaff.



PANNING GOLD IN A COLORADO STREAM.
Photo by E. M. Keating.

THE OLD SILVER DOLLAR.

How dear to our hearts is the old silver dollar,
When some kind subscriber presents it to view—
The liberty head without necktie or collar,
And all the strange things that to us seem so new;
The wide spreading eagle, the arrows below it,
The stars and the words with the queer things they tell,
The coin of our fathers! We're glad that we know it,
For some time or other 'twill come in right well.

—*Exchange.*



Plate by The Inland-Walton Engraving Company.

LOOKING EAST FROM TOPTON, N. C.
APPALACHIAN NATIONAL PARK.

Copyright, 1905, by N. Brock.

Written for THE INLAND PRINTER.

AN ANALYSIS OF A METALLIC OVERLAY.

BY N. S. AMSTUTZ.

THE question of overlays has received a large amount of attention from investigators, pressmen and engravers, and without going extendedly into the various details from the purely theoretical side of the subject, the special characteristics of a specific specimen are analyzed, its features pointed out and illustrated.

The zinc overlay, which is made the subject of this analysis, is, in common with others of the same class, easily produced by taking an impression from the engraving, of which a make-ready is being prepared, onto a metallic sheet placed on the tympan or cylinder of the press. This sheet is then powdered up, heated and etched, when it is ready for use. In order that the working relation may be readily understood, a diagram covering the essential phases of the different stages of a make-ready is shown in Fig. 1, wherein the tympan or cylinder, the overlay, the packing sheets, the sheet to receive the impression, the engraving, etc., are drawn in operative relation, on an enlarged scale.

It is difficult to estimate the extent of overlay effect unless one sees flat and overlay impressions side by side. Again, it is not easy to consider how faithful an overlay is in coöperating with the ink distribution during presswork and how extended its range is in interpreting the tone values of an engraving, unless the subject is a tonal scale which contains the entire gamut of gradation reaching from the blacks through the shadows, grays and "three-quarter" whites, up to the smallest black dots.

Fig. 2 shows a short length 65-line tonal scale printed without an overlay. Fig. 3 shows a similar tonal scale printed with a patent metallic overlay. Fig. 4 is a graphic curve placed immediately beneath Figs. 2 and 3, showing the percentages of white and black of the engraving contrasted with the ideal interpretation demanded by the straight line "curve" that is shown reaching diagonally from corner to corner. Fig. 5 is a graphic curve of the overlay measurements, which is also placed directly beneath the other figures so as to admit of easy comparison being made as between the various conditions illustrated. Fig. 6 is a graphic curve, showing the printed interpretation without an overlay, and Fig. 7 illustrates the modified values, due to the overlay; these are also placed beneath Figs. 2 and 3.

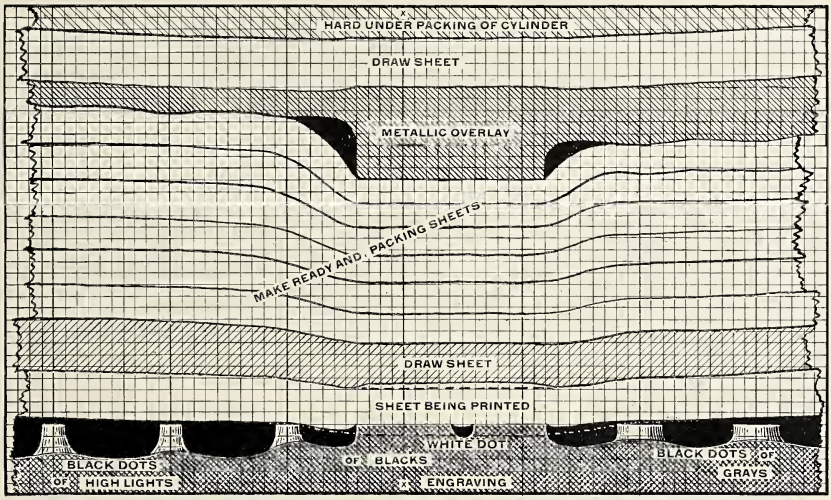


FIG. 1.—Showing a sectional view of a cylinder make-ready in diagrammatic form. Enlarged about sixty times.

Fig. 8 shows microphotographs of the electrotype used in Fig. 2—I representing the "shadows," II the middle tones when the grooves thereof are filled with magnesia powder, and III the high lights or "whites" without any filling whatever.

Fig. 9 shows microscopic enlargements of flat impressions on paper, I being the "shadows," II the middle tones and III the high lights. In this figure the lack of ink distribution in the

blacks is quite apparent, when a comparison is made with I of Fig. 10.

Fig. 10 consists of enlargements of overlay impressions, with tonal ranges similar to those of Figs. 8 and 9; these show to what extent the tonal values have been modified by the overlay.

Fig. 11 is a microphotograph of the overlay itself at about the middle tone position. Some of the dots remain standing and others are partially etched away. In estimating the value for the curves, the mean of a number of areas was taken. The dimensional characteristics of a 65-line half-tone are as follows: Screen pitch is .01538 inch; diagonal pitch, .02175 inch, and unit area = 2365.4.

The values noted on the curves of Figs. 4, 6 and 7 represent percentages of black below and percentages of white above the curve. In the quarter whites the tonal interpretation is fully eight per cent too black, the middle tones or true grays are about eight per cent too white, and in the region of "three-quarter" white there is a loss of black amounting to about fourteen per cent.

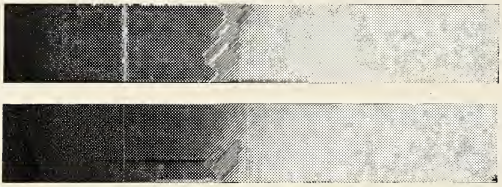
At the extreme ends of the scale the discrepancy between the actual engraving and the theoretical requirements are quite noticeable on the curve. In the *dead* blacks there is a modifying presence of white amounting to about five per cent and in the "whites" a modifying black of nearly nine per cent is present.

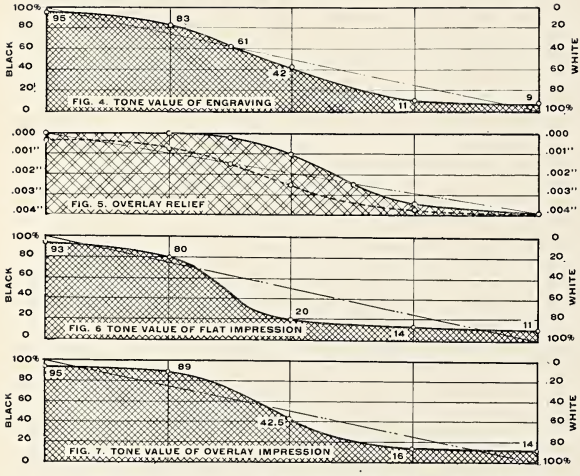
Some of the "white" of the blacks will be obliterated in the spreading action of the press-work, but the amount of black in the high lights, obviously, can not be neutralized, even with an overlay, because the impression from each black dot must be left clear without any dots missing here and there, if the work is to appear crisp and attractive. Automatic "high-light" processes, except in conjunction with litho transfers, on zinc or aluminum sheets, are not yet practical, so the gaining of a pure white must be left to the finisher and his graver, the router or the utilization of staging "dodges."

It is also possible to etch the high-light dots so that they will present a relative area of but from two to three per cent of black, which may be considered a *practical* "pure" white, for the visual sensation is so slight as to be negligible; this is especially true of the smaller "white" areas of a subject, but it does not apply with equal force in the case of a large area of "white" surrounded by middle tones. By contrast, when such "whites" are bounded by dead blacks or deep shadows, the effect is to make them appear whiter than when they occur in the vicinity of large masses of gray.

All theorizing as to correct interpretations, etc., must finally rest on the average visual equation. How far, if at all, the Fechner law of objective and subjective correlation of stimulus and sensation affects the theoretical tonal values is an open question, and the final word in relation to overlay characteristics can not be said so long as there remain the questions of visual impression or sensation, paper quality constants and unit pressure per unit areas of printing surfaces.

Fig. 1, in deference to the opinions of practical pressmen, shows the different sheets of the packing compressed more nearest the cylinder and the overlay than adjacent to the last draw-sheet. This portion of the figure is wholly suppositious and the question naturally arises as to why the sheets nearest the overlay should be compressed *more* than those farthest away. If the sheets have the same physical structure and as the same pressure must be transmitted through all of them, why should a differ-





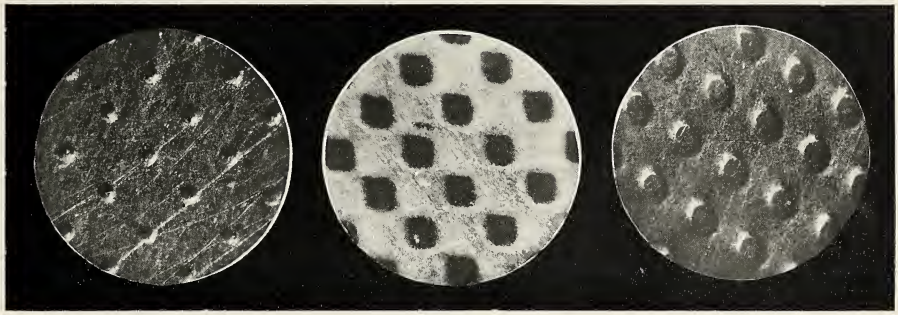
Figs. 2, 3, 4, 5, 6 and 7. The first figure at the top, Fig. 21, is a flat impression, without overlay, of a 65-line tonal scale. Fig. 3 is the next illustration, showing a similar tonal scale, with overlay impression. Figs. 4, 5, 6 and 7 are self-explanatory.

ence of effect be manifest? It is of course obvious that the sheets nearest the overlay will show the strongest markings of the overlay relief, because the sharp edges of the overlay steps will indent the first sheet more than the second, etc.

There is a radical difference of opinion between practical pressmen and investigators as to just what does take place the moment the full impression pressure is on a dead black or a high light. It would seem reasonable to conclude that a part of the overlay pressure goes to compress the final printing sheet, within the limits of its quality and possible elasticity, after the cylinder packing has received its " set."

The actual pressman who becomes thoroughly familiar with all of the idiosyncrasies of each in the continuity of the engraving dots or lines under tympan conditions varying by definite degrees of hardness; also the largest amount of " dip " the ink rollers will follow when considered in relation to the horizontal dimension of such portion of the engraving or type form that is not up to paper.

In working metallic overlays, it is desirable to use them on as solid a substratum as possible, in order that any elasticity which would accompany a yielding underpacking may not give too great a reverse set to the overlay. Frequently the first sheet placed outside of the overlay has the high lights cut out and sometimes two or three of the succeeding sheets have extra thicknesses pasted on over the blacks. The entire packing becomes



I — Shadows. II — Middle tones. III — High lights.

FIG. 8.— Enlargements of 65-line electrotype. Figs. 8, 9 and 10 are enlarged about twenty-nine times.

press under his charge is more able to analyze the practical effects of various methods of make-ready than any purely theoretical deductions can possibly set out, in a more or less dogmatic fashion. He knows his ink, his press, the paper and the many little things that go to make up his daily routine, with a degree of confidence born of many mastered difficulties that at once differentiate him from the theorizer.

He has to deal with the elasticity of the wood blocks, on which the engravings are mounted, a lack of rigidity found in all presses, a variation in the structure and surface of the paper, the elastic condition of the ink rollers, and the distributive quality of the inks, etc., all combined with a certain proclivity on the part of most persons who encounter graphic arts difficulties to " blame the pressman"; obviously this shifting of responsibility is easy for the " shiftor " but not so fascinating or satisfactory to the " shiftee."

It is very desirable, in pursuing overlay investigations, to know the smallest variations of tonal quality the average eye can discern; the smallest change in overlay relief that will cause breaking elastic to a varying degree which harmonizes with the overlay relief and results in a less elastic pressure adjacent to the shadows than is found opposite the high lights.

Ordinary usage has defined the practical limits of range of such overlays for medium runs and average conditions from .004 to .006 inch, but for extraordinary long runs the range will reach nine or ten thousandths of an inch, with a comparative modification of the packing. One reason why these metallic overlays have been given such a hearty reception by the trade, is because of their firm and indestructible characteristics, so that one knows the relief range on which *dependence* can be placed. Oil will not soften or destroy them; there are no difficulties of register on account of expansions and contractions to which non-metallic overlays are ordinarily subject and their preparation is simplicity itself.

It is sometimes asked why a number of overlays etched from impressions made from the same engraving are different; that is, why they are not facsimiles to the smallest detail? This discrepancy is not material, because *practically* there

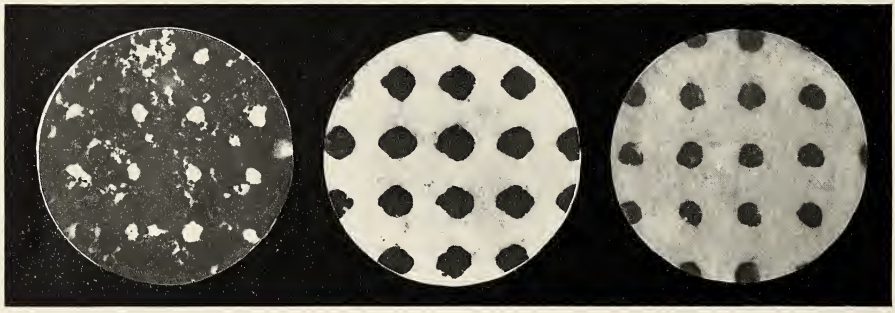
is no difference in their *effect*, even though small differences of individual dots or lines may be noted by casual observation.

The enlarged diagram, Fig. 1, shows the relation of parts to scale. Each little square is assumed to be .001 inch on a side. The positions of the lines of dots of the half-tone are shown ten squares apart, which makes the fictitious representation stand for a 100-line engraving. The reader will be able to draw his own conclusions as to what physical changes can or do take place in the relation of the overlay, packing sheets and printed page to each other at the moment of impression. The uncompressed or natural thickness of the packing sheets, etc., is shown opposite the high lights of the engraving. In order to approximate the circle of the cylinder, the curvature of the lines has been exaggerated; as a matter of fact, the distance the paper would be away from the engraving at the third dot distant from the center x — x on a 20-inch cylinder does not calculate to over .0001 inch on account of the curvature of its face.

The dotted line of Fig. 1 shows an assumed position of the sheet being printed, before the engraving has come in contact with the paper, and the difference between this line and the full line showing the engraving face as in contact with the paper is the supposed amount of final compression. Fig. 5 shows the actual overlay relief curve and a second, dotted line, relief curve *calculated* from the tonal percentages of the engraving given in Fig. 4. A straight line "curve" is also shown to illustrate the theoretical relief values of an overlay conforming to the ideal tonal interpretations of the straight line "curve" of Fig. 4.

The values given in Figs. 6 and 7 are from measurements of proofs made on a Gordon platen press. It is exceedingly interesting to note how effectively the overlay impression curve of Fig. 7 corrects the shortcomings of the flat impression curve shown in Fig. 6; the middle tone values which are largely lost in Fig. 6 are restored in Fig. 7. The blacks of Fig. 6 in reality are not as dense as the curve shows, because they are considerably broken and mottled. Since the curve is calculated from the average dot areas only, these defects do not appear to their full extent on the curve. From these data it is not difficult to deduce conclusions as to the practical interrelation of the several phases of overlays.

It is extremely fallacious to attempt to make ready by pasting a cut *overlay* underneath the mounting block, but hardly so questionable between the plate and the block. It is most efficacious on the cylinder or tympan. Of course the ideal place is to have the overlay combined with the engraving itself.



I — Shadows. II — Middle tones. III — High lights.

Fig. 9.— Enlargements of flat impression, printed on platen press from Fig. 8.

About 1899 a grained plate for letterpress printing that was formed with a variable relief to the surface was shown in England by Messrs. Charles and Alfred Dawson, of Chiswick. The grain seemed to be of the reticulated gelatin order and there was, if anything, an excess of relief that made the transition between the planes of contrasting tone values, which lay immediately adjacent to each other, too vigorous; in fact, so sudden was the change as to cause the paper in printing to bear off and show narrow lines at the junctions of the two tones, which was a serious drawback. It is thought that this result was not designed to combine overlay and engraved effects on the same plate, but it may have contained the germ of dual purpose engravings.

It is believed that the microphotographs shown will be a surprise to the reader, for the reason that but few persons, relatively, have ever seen half-tones and prints made therefrom under a microscope. The results represent fair average conditions. The spreading action of the ink is

clearly shown on some of the dots where there is a darker area around a given dot. To show this characteristic in detail, considerably higher magnifications would need to be used.

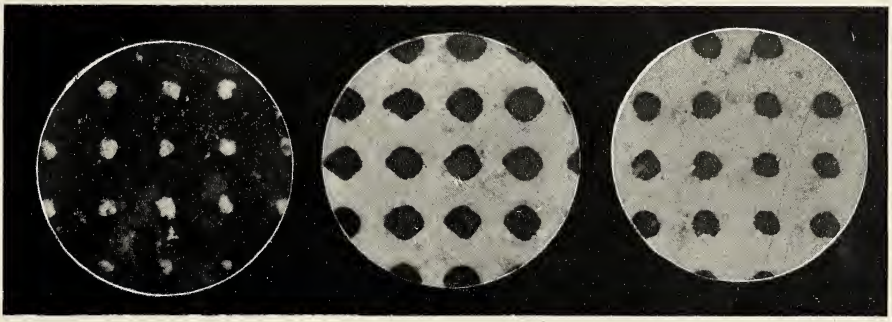
The flat impression tonalities compared with those of the engraving diagrammed in Fig. 4, are found to be two per cent lighter in the blacks; three per cent lighter in the quarter whites; twenty-two per cent lighter in the grays; three per cent darker in the "three-quarter" whites, and two per cent darker in the "whites" or extreme high lights. Those of the overlay impression compared with the engraving are found to be the same in the blacks, six per cent darker in the quarter whites, practically the same in the middle tones, five per cent darker in the three-quarter region and also five per cent darker in the "whites." A comparison between the overlay and flat impression discloses considerable difference; the overlay caused the blacks to become two per cent deeper and added nine per cent of black to the quarter whites, twenty-two per cent increase of black in the grays, two per cent in the three-quarter whites and three per cent in the whites. This shows the entire overlay impression to be darker than the flat proof, due to the overlay being simply placed on the flat impression packing. As already referred to, the blacks of the flat impression are not so evenly distributed as when the overlay is used, hence the percentage of black is really less than shown by the curve of Fig. 6 — possibly as much as eight per cent.

The microphotographs of the overlay impressions show a more even ink distribution of the printed dot and it will also be seen that the dots are more regular and larger where more pressure was applied.

The enlargement of the high-light dots of the printed impressions is seen to be darker with the overlay than without, which should not be the case, as the "whites" will be nearer pure white when an overlay is used, if the mistake of leaving the under packing too soft is not made. The whole purpose of overlays is to solidify the blacks and overcome the spreading action of the ink in the high lights and not to make the entire subject to print darker.

It is hoped that researches of this order will place at the disposal of the busy practical man valuable data from which he may be able the easier to draw logical conclusions as to the different phases of the subject and apply his deductions to practical purposes.

One may wonder how it is possible to secure a variable relief surface by etching half-tone dots on a zinc plate. The explanation is found in the fact that, assuming the acid action to be uniform with the time of etching, there are areas and surfaces that present variable points of vantage for the acid to attack the metal. When an ink impression is made from a half-tone on a zinc plate there will be found areas of ink that vary in size according to the differences of tonal value of the half-tone which correspond to the tone values of the original photograph; these inked areas, when a resinous powder is dusted on the sheet and the surplus is removed with a camel's-hair brush, will hold powder sufficiently well to insure an ample quantity to form the acid-resist coating when the sheet is heated just enough to cause the powder particles to coalesce and form a protective coating. The acid begins to act at the same time over all the uncovered portions of the plate, but as the areas which are not covered by the resin (dragon's-blood powder) are not all of the same size the acid will, due to its side action, cause some of the more open spaces to join up with others and thus destroy any dividing walls that there may have



I — Shadows. II — Middle tones. III — High lights.

FIG. 10.— Enlargements of overlay impression. Printed on platen press from Fig. 8 by placing overlay on top of the packing used for Fig. 9. To gain full benefit in reduction in size of high-light dots, the packing beneath the overlay must have less elasticity.

been between them. It must, however, be remembered that as the acid acts sidewise it also acts downward and at the moment the dividing wall is broken down at the top its height will gradually be reduced according to the length of time the acid acts on the metal. This will give one staging of relief. Another will be found in the high lights where the black dots have become topped and finally almost entirely eaten away, leaving, however, small mounds of metal standing where the black dot had previously stood.

In the shadows there is little action because the powdering more or less closes the small white dots, but in the middle tones the white dots remain more open and allow a more rapid spread of the boundary of acid action, which soon causes contiguous dots to join. It may be seen also in Fig. 6



FIG. 11.— Overlay enlargement magnified about thirty-seven times.

how the tone value of a flat impression is lost in the grays or middle tones, due to there not being enough pressure at this point to procure a full breadth of inked effect of each dot. In a similar way the impression made on the zinc sheet at this same tonal region is not enough to firmly spread the ink on the impression from the printing surface, and in consequence there will be left small parts that are not covered (the zinc will not take the ink as readily as paper). These parts will receive the acid and the removal of the surface will be accomplished from the top as well as the sides, and the resulting effect will be to continue the vertical and side action until the plate is removed from the acid. Roughly stated, the relief will depend on the portion of time the acid has acted simultaneously from *three* faces of any surface. The relief measurements were made with a standard micrometer reading to ten-thousandths of an inch. A ratchet head guarded against excessive pressure, so as not to break down the small dots that remain standing in the middle tones.

HE WAS A "SWIFT" DOWN HOME.

"How did you happen to strike this town?" asked one of the tight-line blacksmiths who had been listening with awe to the "stunts" as told by the Swift.

"W-a-ll, I'll tell yer, boys; it happened this way. I drifted inter Cincernater, and the way those guys puffed out about their big strings would have made a Mexican horned toad drop his warts in envy. So I thort I had run up agin the speediest bunch in the biz. That night I showed up on one of the fly papers they use for reading matter in that town, and caught on. I was put on No. 8, speeded up to ten lines a minute, right between two eight-thousand and ten thousand-an-hour-men. W-a-ll, as I said afore, I jest made up my mind to show 'em a few, and what we uns can do in the South when we wake up. Talk about a 'Mergie' humping, you should have seen it, nothing but chug! chug! chug! all night long — machine full up all the time. About night time I noticed the two swifts alongside getting nervous and shuffling around, so at lunch I called them to one side and told them that if my pace was too fierce I would ease up some; but, no, they said they were moseying along smoothly, and could stand it, and that made me madder than ever, the gol darn fools. After lunch I had the boy stay alongside and feed in the ammunition, while the machinist repacked the hot boxes and oiled her up anew. He said I was the 'limit' of the gang that hiked that way, but he was game, and said he would do his best to get the most speed out of the old rattletrap. Everybody in the building got next that the Carolina Wizard was in town, and accordingly the whole force came down to see what an artist can do on a Lenotipe. When we got through I had ninety-five thousand registered, and the next highest man only had sixty thousand. He looked as lonesome as a Washington printer on the water-wagon. W-a-ll, the main gazoo offered me a steady sit, which I accepted. I jest stayed thar three days and put the whole caboodle to the bad. Four ops are now in the sick factory with nervous prostration, and one has been sent to the Printers' Home at the Springs; the others told the foreman that they could not work alongside of me. The man with the monkey-wrench also put in extra bills for oil, ice, and a boy to feed the metal-pot, so the foreman thought it would be best to let me go. The bunch were so tickled that they took up a subscription and gathered in about fifty plunks, and as I had a brother here, thought I would come and look over things in this neck of the woods."

"I notice you don't pull out here," said Slug Seven, timidly.

"Hell! Me pull out for the scale in this man's town? Not on your Luna Park tintype. I only set for what I'm paid for." And the Swift walked away disgusted.

MARK TWAIN ASKS FOR HYMN-BOOK.

Mark Twain once wrote to Andrew Carnegie as follows:

"MY DEAR MR. CARNEGIE,— I see by the papers that you are very prosperous. I want to get a hymn-book. It costs six shillings. I will bless you, God will bless you, and it will do a great deal of good.

"Yours truly,

"MARK TWAIN.

"P. S.— Don't send me the hymn-book; send me the six shillings."

Written for THE INLAND PRINTER.

MECHANICAL CARICATURES.

BY E. D. SPIER.



THIS subject, as exemplified by the specimens we have seen, savors of the occult, for how can an inanimate film *elect* where its structure is to expand or contract to form abnormal delineations of the subject according to some law of auto-selectivity?

The much heralded scheme is "nothing new under the sun." The view we show herewith was made in 1885, at Cleveland, Ohio, looking from the corner of Superior and Bond streets, westward. It might be the record of some great cataclysm of nature, but it is only a street scene in caricature, not by premeditation, but by accident, because the sun warmed a wet film enough to cause the gelatin to "run" and thus produced an automatic mechanical caricature.

The claim made that the modern agent which is used on a negative automatically selects or controls the distortion of an ear, the extension of the legs, the depression of a shoulder or one of any of many possibilities, as against a proportional distortion of any near-by objects in the background or immediate vicinity, is too good to be true. Here is a medium that *elects* to do or not to do, but why?



A PHOTOGRAPHIC CARICATURE.

Does this material have some supernatural volition? If the softening solution is applied locally the action is understandable because this would set aside *automatic* selectivity.

A recent description in *Popular Mechanics*, noticed in *The Literary Digest*, says, "The figure of a man is represented in the picture caricaturized, while *all* of the *other objects* shown *retain their normal form.*" (The italics are ours.) This must be a slip of the pen, because the view shows other men similarly distorted.

THE METHODS OF JAPAN.

In an address to the Business Science Club, Chicago, on Monday, July 2, Congressman D. E. McKinlay, of California, speaking on the subject of "Oriental Trade Conditions," said: "They pay no royalty in Japan. They buy one machine or piece of apparatus in America, take it to a Japanese factory, pull it to pieces and build fifty like it. And they capitalize their plant at one-fifth of the European or American amount. That's the kind of competition you must deal with in Japan."

Commenting on Congressman McKinlay's address, the Chicago *Tribune* says editorially: "Representative McKinlay of California is suffering from the 'yellow peril' disease. The man who has it entertains an extremely high opinion of the intelligence, industry and capacity for rapid progress of Japanese and Chinese. He is afraid that through these qualities they will drive American producers out of foreign markets, and even become the industrial masters of the world.

"In a speech made in this city the other evening Mr. McKinlay said that a great competitor is developing with whom Americans will have to wage a much fiercer battle than the one they have been carrying on with British, French, or German competitors. 'What will happen,' said he, 'when Japan has taught the Chinese to produce American machinery and to use it themselves? What will happen when the orientals themselves become great producers as well as great consumers, and begin to compete with us in the markets of the world? They will produce any article at about one-fifth of the cost to the American manufacturer and sell it in all parts of the world.' They will be able to do that feat because the wages they get now are only a few cents a day.

"Here is an assumption that the skill, capacity and productivity of the oriental workers will be multiplied, but that their wages will be stationary. That is something which happens neither in the Orient nor in the Occident. Wages advance with productivity. They are higher in Japan than they were a few years ago. When the Chinese have made so much progress that they are able to run delicate and intricate machinery at the same rate of speed as the skilled workers of other countries they will demand and receive better wages. They will have to be better fed and clothed. Their awakened intelligence will teach them new wants which will have to be supplied.

"Another assumption of the sufferer from the 'yellow peril' disease is that Chinese and Japanese will reach the pinnacle of industrial expertness with hardly an effort, and that while they are advancing with unexampled rapidity Americans will remain at a standstill. The sudden conversion of a nation of handworkers like the Chinese into a nation of skilled machine workers would be a remarkable phenomenon. It would be equally remarkable if the people of this country, who have been taking such rapid strides along the roads that lead to industrial supremacy, were to get tired suddenly and sit down. None can imagine such things except those who have an insane fear that the yellow races are to rule the world.

"Is the Caucasian played out? That he is seems to be the doleful theory of the men who are concerned about the 'yellow peril.' Sensible men look forward to the gradual development of orientals as producers and consumers — a development which will make them far more profitable customers than they are now, but which will not threaten the industrial leadership of this country."

I AM a reader of THE INLAND PRINTER and would not be without it in the office. It is a great help in all work.—*John A. Corbett, Williston, North Dakota.*



Plate engraved by Inland-Walton Engraving Co.

Photo by H. H. Bennett, Kilbourn, Wisconsin.

THE NARROWS — DELLS OF THE WISCONSIN RIVER.

CORRESPONDENCE

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names — not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

A PRINTER WITH A PROTEST.

To the Editor: PITTSBURG, PA., July 3, 1906.

In the first place, I hold that an imperative obligation rests on the employee to render to his employer the highest ability he can develop. This is his part of the implied contract when the employer agrees to pay him a certain stipulated sum for services rendered; and for the employee to bring to his duties less than his full capabilities is to shirk his responsibilities in the contract.

These are the principles on which I have tried to govern my relations with my employers. But in following them out, I have run into a difficulty that calls forth a protest and one that is probably more general than most employers would care to admit.

The office in which I am employed handles the usual small commercial work, and makes a specialty of "nice" printing; at least an effort is made to turn out that kind, and the firm's advertising constantly reminds the prospective purchaser that this is what causes our work to differ from others'. With the money end of the question I have no reason for complaint, nor is there any trouble with my personal relations with the "boss." The difficulty that presents itself is the constant nerve-racking effort to produce superior work with an equipment that belongs to an age past and gone. The type-faces, with a few exceptions, are those which no self-respecting printer would dare to use; most of them are not in use from one year's end to another, with the result that the few modern faces are worked to the limit in the effort to produce the work that is expected.

Then the size of the fonts. Many of them are so small as to make them useless for anything except a line or two; even then it is found necessary to count the letters to make sure there will be enough. Often it is required to "fake" a letter or two by substituting those of another font, with the consequent deteriorating effect on the job or ad. And then the agonizing hunt for "sorts" — the inevitable accompaniment of small fonts. No one knows the time lost in hunting for sorts like the printer who hunts for them, and my observations have shown me that this is the largest item of waste in the composing-room.

Only the other day an order came in for a legal blank which required an italic letter. There being none suitable in the office, the type was ordered, fifteen pounds being recommended as about the right quantity. When the type arrived it was found that the order had been cut to five pounds, enough to set less than one-third of the job. Had there been enough to set half, the job might have been finished in two settings. As it was, there remained nothing but to order the balance necessary, resulting in another delay.

And then the ornament case. Nine-tenths of its contents are absolutely useless, as much so as though they had no existence. Most of the ornaments and borders are survivals of the bent-rule age, a conglomerate mass of eccentric designs which should long ago have been consigned to the hell-box. Only a very few of them can be used, and here again we find that the few modern ornamental designs are worked double time, robbing the resulting productions of all individuality.

The writer does not indulge in pipe-dreams of imagining that the typefounders' specimen book alone is the key to good work, but he does know that stylish work can not be produced with faces and ornamentation that are out of style. He knows that new material costs money, but he has every reason for believing the firm is prospering financially and can well afford the outlay. If new stock, new rollers, new ink is a necessity for the pressroom, no less, he holds, is new material a necessity for the composing-room.

The writer believes his protest is well founded, and at the risk of being classed as a "knocker," has submitted his views to the readers of THE INLAND PRINTER.

JIM KANE.

THE NATIONAL LEAGUE OF AMERICAN PRINTING PLANTS.

To the Editor: NEW YORK, June 14, 1906.

In your June number I notice the Macedonian cry of the Decatur brethren and your very sensible comments thereon. What Mr. Marquam says about the general existence of jealousy and personal feeling among the master printers of this and other lands is most sadly true. But this feeling is also found among newspaper writers, actors, singers, musicians and like professions. It but proves what most printers have hitherto refused to believe — that printing is an art, or at least an artistic profession, and its members are more or less controlled by the feelings dormant within the artist.

In other words, here is the situation: John Smith has been lying awake half the night devising some novel and artistic method of producing a certain piece of work for a customer. The result is the darling child of his brain and of his imagination. He loves it as does the mother love the tiny, perhaps squint-eyed baby, given her by the Creator to care for. There may be no apparent reason for Smith to thus idolize his work. It may be very, *very* "bum" and lacking in all artistic qualities. But to Smith it seems perfect.

Samuel Jones, who is Smith's neighbor and competitor, has a similar dream and the production is, to him, the quintessence of beauty. He can see little of good in Smith's work of art. His own baby is *the* baby of the town and the folly of Smith in trying to emulate his (Jones's) wonderful "job" is monumental. Each man looks on his own particular effort as the best that can be done and feels "sore" at the "gall" displayed by the other poor "dubs."

The result is an impossibility of concerted action unaided, as Mr. Marquam so justly says. Yet artists in oil have organizations and "academies" where the work of all is displayed and critics are elected to "hang" the exhibits in their proper relative position in the realm of art. Musicians have their organizations and conservatories, and other artistic professions have their own methods of unification. So it is not an impossible thing for the master printers of America to form themselves into a National League, having for its sole aim the betterment of the printerman.

My idea would be to have a vice-president of the League in every city in America containing twenty-five thousand or more inhabitants, the said vice-president to be the head of any local organization of the League in his own city and contiguous territory. In pursuance of this plan, Mr.

Martin J. Pendergast, now and for nearly two years past the President of the New York Master Printers' Association, would serve as the New York city vice-president. In like manner, the owners of plants in each city could designate the man they would prefer as the local vice-president and head of its organization.

The immediate, practical, money-producing result of such a league as I suggest would be the possibility of uniting communities as a unit of a comprehensive whole. Take Decatur for instance. Let Mr. Marquam send in his own membership to the League and urge his fellows there to do the same. Then, as soon as it can be done, some one can visit Decatur and gather these members for a consultation and at such consultation elect a vice-president of the league for Decatur, who shall have the position of local head of the Decatur "chapter." As soon as it was found that the cost to each member of the league was but twenty-five cents a month, that the sole object was the obtaining of a united scale of prices for work and a better price for supplies bought — with all the jealousies about the labor question and similar "impossible" topics cut out — then would our friends in Decatur and similar towns find that it was possible to gradually forget personalities and become harmonious members of the most glorious craft in the world to-day.

That the employees will aid and help on such a league is shown by the editorial approval of my plan given in the March number of the *Typographical Journal* (page 261). And those of you who have never had it, can't conceive the joy that comes to the master printer who has the cordial coöperation of the men who are under his employ and by whose work he must make his money and reputation. It seems to me that it is high time that the printing trade have its own little "Hague conference" act and have a permanent peace commission.

I have been severely criticized for "taking the men's part" by many of the old-line fighters among the employers who think the club the only answer to argument. I *don't* take the men's part. I am, in the truest and best sense, taking the employer's part. I am trying to teach the modern doctrine of peace. Even the most truculent nations of the earth are beginning to see that peace is more profitable than war. One-tenth of the uselessly expended money consumed in this last strike (if so feeble a proceeding can be thus dignified) would give each side all they have been striving for.

How we gasp with astonishment when we see two boys suddenly start in to belabor one another in a purposeless fight! We try to stop them and reason with them. Then we immediately proceed to swipe one another commercially and keep it up till both sides are weak from loss of blood. Why is all this necessary? Let the employer unite into a national league that will not start out with the avowed purpose of scrapping and he will have the coöperation of his employee and of his customer. The latter does not really wish to cheat the printerman, but if the printer insists on cheating himself, the customer will in nine cases out of ten submit. But he laughs at the printer and calls him seven kinds of a fool (as he is) behind his back.

Now as to the National League of American Printing Plants. It seems as though it is a go. Not within my recollection has so much interest been manifested in all parts of the country over a proposition presented to master printers. They are a cynical class and do not "bite" readily. I confess I hesitated to tackle this proposition or present it at all. But the result has surprised me. The number of men joining the League every day shows that the right chord was struck. Very soon I shall endeavor to send out some printed matter to practically all the master printers of America and begin a more active propaganda. I wished first to ascertain if the league idea was needed and would be supported. PUTNAM DREW.

ABOLISH THE SOUVENIR.

To the Editor: WASHINGTON, D. C., July 10, 1906.

I have been a member of the Typographical Union for over twenty years and have taken a lively interest in its work during all of that time. With feelings of pride I have heard the organization referred to as a model of business integrity and straightforwardness, for I felt the praise deserved. It has made mistakes, but it has almost invariably kept its pledges and been remarkably free from



RELICS OF THE PAST.
Photo by E. M. Keating.

the "fakerism" so common in these times. But the taint of the faker is in evidence at almost every convention in the shape of the "souvenir." Such publications are really refined means for holding up the advertisers, though apologists and advocates say they afford a method whereby "friends" can contribute to "the cause." In plain English, this is begging, and isn't it beneath the dignity of an organization of the pretensions and purposes of the International Typographical Union to go among its supposed "friends" seeking donations with one hand while making the motions of fondling a club with the other?

But the International Union itself reaps no benefit from the proceeds; they find their way into the coffers of some convention-entertaining union and the pockets of the fakers behind the graft. The International Union's sole dividend is the odium that attaches to the transaction, it being made to assume the role of highwayman in the gentle negotiations that precede a "donation to the cause." The victims of the souvenir book habit know the proper name of the process by which they are separated from their money and do not hesitate to express their opinion of the

men and organizations who resort to such means. From considerations of protection to its good name and in the interests of common decency, the International Union should prohibit the publication of money-making souvenirs in connection with its conventions. The custom has led to scandals in other bodies, and it would be well for this great union to show its foresight by stamping out the evil before it becomes a real menace and the cause of some good man's downfall. Our union is a leader, but it is behind other unions in this respect, and I hope some delegate at Colorado Springs will set it right. A resolution of a few words will do much for decency — and take the trick.

E. E.

PRESSMEN'S INTERNATIONAL CONVENTION.

To the Editor: PITTSBURG, PA., June 26, 1906.

The convention of the International Printing Pressmen and Assistants' Union opened Monday, June 18, 1906, at Pittsburg, Pennsylvania. The sessions were held at Maennerchor Hall, situated across the river from the city proper on Mt. Washington Hill.

A sensational episode marked the opening session of the convention. New York Union, No. 51, having had its charter revoked by the International Board, sent a delegation of over forty of its most prominent members to plead its cause. These gentlemen marched into the hall bearing flags and headed by a brass band, and after circling the room three times, were wildly cheered by the delegates, after which order was restored and the usual ceremonies were proceeded with.

The welcoming address was delivered by Charles McKeown, of the local union, who afterward introduced the Hon. Mayor Geo. W. Guthrie, of Pittsburg, who spoke highly of organization as a means of progress and feelingly of the day when universal peace and good will would prevail and the warring of nations and individuals cease forever. He also gave the keys of the city to the delegates, which of course was another step toward the promotion of peace and good will. Mayor Guthrie then gave way to Congressman James Francis Burke, of his city, a gentleman of splendid oratorical ability, who entertained the convention for some time by one of those happy flights of oratory which caught the temper of the convention and brought forth round after round of applause for the speaker.

The president, Mr. Martin P. Higgins, was introduced next. Mr. Higgins, after setting forth the progress and success of the past year's work of the international body, departed from all precedent and caused the assemblage to sit up and gasp for breath by bringing the candidates for the office of president before the convention by means of eulogistic notice of each of them, closing by one of the most artistic self-laudatory "boosts" it has ever been the fortune of the writer to hear. After the convention had recovered from this shock the business proceeded as usual.

The first day was given to the credentials committee to prepare the list of regularly accredited delegates, which brought up on the second day the New York matter and precipitated the first battle of the convention.

It would appear that New York's union charter had been revoked by the officers on the ground that that body had refused compliance with a law passed at the 1905 convention, a statement denied by the representatives of that body. After the revoking of the charter of old No. 51, two charters were placed in New York city, one for web or newspaper pressmen, known as No. 25, and another for pressmen employed in the job and publishing trades, known as new No. 51. These bodies were represented by seven delegates. Old No. 51 sent ten delegates, with a request that their charter be restored and their delegates seated. The credentials committee reported adversely to old No. 51, whose cause was espoused by the Chicago delegation and by many of the pressmen's delegates from various other sections. After considerable wrangling, the rejected delegates were given opportunity to state their case on the floor of the convention, which was ably done by John T. Moran, Peter Dobbs and Al. Kreitler. The executive board was then asked to present its side of the case, which it did at considerable length, President Higgins speaking for an hour and a half on the matter. This closed the second day's session and the delegates retired to discuss the situation as presented to them.

There was much diversity of opinion on the merits of this controversy, the older and more experienced delegates feeling that the action of the board only created disruption and dissension at a time when harmony should exist, if the body expected to present a united front when the eight-hour question would face them, as face them it would at the expiration of the existing agreement with the U. T. A.; the other and younger element, largely composed of the feeder delegates, siding with the officers and rejoicing shortsightedly in the opportunity to humble the pride of No. 51, which had so long controlled the policy of the International Union.

The next day the credentials committee's report being finished, the seating of old No. 51's delegates being refused by vote of the convention, 156 delegates were reported present, eighty-six representing pressmen's unions, fifty representing feeders' unions, twenty representing newspaper web pressmen's unions. The nominations of officers for the ensuing year was proceeded with. The following were nominated: For president, Martin P. Higgins, Boston; James H. Bowman, Chicago; Edward H. Randall, Toronto; Henry H. Gallien, Newark. The balloting resulted in the election of Martin P. Higgins on the second ballot, he failing to get a majority on the first. It was noticeable that the bulk of his support came from the feeders and newer delegates to the convention, who seemed to fail to consider seriously the fact that there had been no progress in numbers or in financial strength made by the body during the year past, and that the existing agreements, about to expire, were objectionable to those whom they were supposed to protect. This was noticeably so on the part of the Newspaper Publishers' agreement, that document being denounced as a "dire failure" and as "checking the progress of the entire web press organizations of the country," by the delegates representing the web pressmen's unions in the convention. Credit must be given Mr. Higgins for his handling of the political phase of his office, and to his shrewd manipulation may be attributed his successful candidacy.

William J. Webb, of New York, was elected secretary-treasurer without opposition, as was First Vice-President William Murphy, of Butte, Montana, and Third Vice-President E. W. Gordon, of Boston. Second Vice-President John G. Warrington was elected over Charles G. Meyers, of Cincinnati, by a large majority.

The politics of the convention being over, the business of the session was taken up in earnest. While a great many changes in the law were offered for the consideration of the delegates, none of importance were made, an attempt to place the platen pressmen in the jurisdiction of the feeders' unions being defeated.

It was generally noticeable at this convention that there was not existing that spirit of fraternalism and mutual dependence that should mark a body striving for the advancement and progress of all its members, there being a spirit on the part of the web and feeders' unions

to hold caucuses at which the interests of their own branches alone were considered without any reference to that which was for the general good. It was greatly deplored by those who observed closely the work of the convention that the feeder, blind to his own future, should strive to master the pressman, to whom he must look for future advancement and whose craft he should aim to uplift, as his hope should lie in the betterment of pressmen's conditions; but unfortunately the trend of the feeders' mind seems to be that pressmen are their enemies and are to be kept down by legislation. Accordingly, until that jealous class spirit is eliminated, the I. P. P. & A. U. will not make that progress which it properly should, and it is hoped by those interested in its progress that the policy of the officers, which has in the recent past encouraged this spirit, will be devoted in the future to eliminating such feelings; then true progress will be made, and no such condition as at present exists in New York city will confront that body.

The president's report treated of various matters, such as relations with other international bodies, eight-hour day, the situation at Hammond, Indiana, the Chicago condition in the feeder's line, agreements with employers, and various other questions which concerned the locals only. On the relations with other bodies, the report says the new joint conference board is working in an almost ideal manner, and no suggestions for improvement are made. It is hoped that this is true, but here in Chicago we did expect that a closer bond governing joint action in trouble would be proposed for the consideration of the convention.



Photo by George A. Furneaux. Goodrich Line.

CLIFFS AT WASHINGTON ISLAND, WISCONSIN.

On the eight-hour day, the president quoted the action of the San Francisco convention and related the efforts made to bring the Typothetæ into conference on that question, those efforts covering a period of several months being unsuccessful, and recommended that an assessment be levied on all members from July, 1906, to July, 1907, to create a shorter work-day fund, the same to be kept intact until the eight-hour struggle began.

This recommendation was concurred in by the convention, with the further instruction that the officers were to again make an effort to arrange for the shortening of the work-day by conference with the Typothetæ during the life of the present agreement, which expires May, 1907, and failing in this, to make such recommendation to the next convention, June, 1907, as will meet the approval of that body.

President Lynch, of the I. T. U., made a stirring address on the eight-hour question on the fourth day, as also did President Glockling of the Bookbinders' International, which body asked that the I. P. P. & A. U. take up the eight-hour question with them and the two internationals act jointly in the matter. This was agreed to and joint action by those two bodies and the I. T. U. was endorsed by the convention. Thus it is hoped that the 1907 convention will have a definite plan for the establishment of the eight-hour day before it for consideration, thereby putting an end to the present undecided condition of this the most important question of all to the rank and file of the workers in the printing trades.

The old question of a union at Hammond, Indiana, was taken up and the board was authorized to place a charter in Hammond, the scale to be the same as in Chicago. The board was also instructed to go to Chicago and, acting jointly with Chicago Pressmen's Union, endeavor to bring the Franklin feeders of that city into the international fold. They were also authorized to make an agreement with the Newspaper Association only after an amendment had been made, requiring that bodies be consulted before any agreement be signed, in order that the interests of all the newspaper trades be guarded properly. On the U. T. A. agreement another year will tell the fate of what has been considered practically and really an open-shop agreement by most of those in a position to judge of its merits. The majority of the delegates not being confronted with this agreement did not take its defects seriously enough to realize its menace in time of trouble, consequently no great discussion of its provisions was had. No other matters of general interest were considered, and after fixing upon New York city as the next meeting-place, the convention adjourned.

The social features of the convention were well taken care of by a committee of members of the three locals of

Pittsburg, headed by Charles A. McKeown, and a very efficient corps of ladies, who acted as auxiliaries to the committee, and took good care that the lady visitors were well entertained. The most pleasant features of the week's enjoyment were the trip up the river at night, the visit to the factory of the "57 varieties" and the dancing reception at the hotel Thursday evening, all enjoyable events to those who participated in them.

It would not be proper to close this account without referring to the gentlemen whose business it always is at conventions to make it pleasant for the delegates and visitors and also promote the standing of their various firms by their courteous activity.

Mr. J. A. Johnson, Jr., will be well remembered; being located in Pittsburg, he was in a position to give those who visited his city an entertaining and agreeable idea of the city and its points of interest, a duty he well performed. Mr. Johnson represented the Pittsburg house of Bingham, whose firm was also well represented by the genial George Smith, the rotund and rosy P. Ryan and the reliable veteran, Al. Merki, a fine bunch to draw to. Charles Newton took care of the Philadelphia Bingham house's interest and presented each delegate with a pocket-book to bring home his money in (?) as a souvenir. Charles Dresser also handed his "Kohler System" pencils and his pleasant smiles out to all who met him, while Larry Birmingham, of the American Printing Ink Company, William Richards and John Fitzgerald, of Ault & Wiborg Company, Will Loomis, Theodore Ellis, and last but not least, the active and sprightly Mrs. Annie Buckie, who never misses a convention, and who bears the weight of her years lightly as a girl, lent pleasure and sociability to a gathering long to be remembered by

J. H. Bowman.

MR. H. M. BINGHAM ON THE ROLLER QUESTION.

To the Editor: New York, N. Y., July 3, 1906.

In a letter published in your July issue, Mr. John B. Neale takes exception to the statements in my advertisement in your and other journals in the June issue. One is forced to deduce, as I illustrate later, that his communication is more of one through chagrin, rather than from the fact that I had antagonized information claimed to be valuable to not only users of rollers, but to those who were paying the bills for them. In order to dispose of Mr. Neale, I would say that I am heartily in accord with some of his statements, to wit:

"One would naturally suppose that anything bearing upon the intelligent treatment of the goods in which he (myself) is interested, would find the manufacturer cordially in sympathy with its purpose."

A well-founded premises, but the article of May covered by my answer in June, did *not* bear "upon the intelligent treatment of the goods." My reason for my advertisement was, there has been considerable rushing to print by one printer or another having individual ideas and queer practices as to the care of a roller, each one disseminating his particular views as to the way a roller should be handled, resulting in a mass of misinformation which the manufacturer of rollers is continually combating. These contributors have thrown a quantity of unnecessary mystery around a roller, building up, as it were, a romance which is not only ridiculous, but harmful. Therefore, when the wildest nightmare that had ever been put in type was published as advice on rollers, it was but natural that it should be made to look ridiculous, as it was.

Further, after reading Mr. Neale's fellow-employee's article about one-third through, I discovered that his "advice" (?) was not so much how to prolong the life of rollers, but rather a vehicle to bring to the attention of the readers of The Inland Printer, a contrivance he had adopted in his pressroom and was offering for sale, and this was so thinly covered that it needed no Sherlock Holmes to discern it. He poses throughout the entire article as one of the greatest living experts, to whom, when he was called to locate trouble in a certain printing-office as to reason why rollers did not lay color "smoothly on good enameled stock," that it took but "one glance" to locate the difficulty, and he intimates it lay in having the rollers stacked on an inverted "V" shaped frame; bosh!

Possibly, the contributor effected a sale of his contrivance, which, by the way, the idea for same was not original with him, emanating in the later '70's from James J. Glastaeter, a New York printer. A sale of this contrivance undoubtedly made (?) the rollers work, but if the contributor knew his business, he explained the real cause of the trouble.

The balance of the whole article has absolutely nothing original in it, excepting the advice concerning maintaining the temperature 75° F., three feet from the floor, which is most ludicrous. But he displays the grossest ignorance concerning the object of which he is writing, when he talks about rubbing glycerin into the rollers, and again when he talks about glycerin working out of rollers, either of which is a chemical impossibility. He spoils his article, even as an advertising medium, by the advice of use of matches to mend a roller, when a candle would be handier and more effective.

Apparently the office from which the article and the letter emanated bristles with superintendents, and the writer of the letter must be the superior of the writer of the article, because he states that "the means advocated have not failed in their purpose during the past nine years, coming under the personal observation of the writer." Presumably, the commodity offered as a cure for rollers refusing to put the inks smoothly on coated or any other kind of paper, has in its incorporated company both these men as stockholders; which, if true, any means taken to make their stock advertisement look ridiculous would be resented by both. Further, after getting the endorsement of The Inland Printer for the article "on pages 268-9," it was printed, circular form, giving credit to "The Inland Printer, May, 1906." A good endorsement.

The writer on any given subject always lays himself liable to criticism unless he is sure of his facts, and should not be offended, grievously, when his errors are pointed out to him. Does Mr. Neale really believe that all those mysterious manipulations made "under his personal observation" do the rollers good? He admits that they have been practiced for nine years.

There is no objection to one's fooling himself if he wishes, but he must not be disgruntled because others are convinced that the practice of his advice is but a waste of time, or because a question is raised as to his status as an expert and in a position to pose. One's fellow employees may not *question* him, to be sure. I wonder what Mr. Neale would have said to another "superintendent" who advocated and actually practiced sponging new rollers with a carriage sponge from a bucket of water and who had a room built with a water-tight floor to carry out his theory of *sponging new rollers so that their pores would be opened and bring about early seasoning?* The article "on pages 268-9" looks just as ridiculous to me and I still maintain that it is mere "tommy-rot."

Rubbing and kneading rollers, or measuring the temperature at "three feet from the floor" never had a parti-

cle of influence on the rollers, and they would have been as good without it. To be sure, it looked good and effective and because it *looked* good and they believed it *did* good, they were hypnotizing themselves into the belief that the rollers lasted longer and gave better service.

The position rollers are stacked has absolutely no bearing on their durability or working qualities; it is simply a question of convenience. Notwithstanding all the expert's time-taking practices, which Mr. Neale is satisfied are efficient, he had to set his rollers once a week. No one that I know of does. He still found that he must do as every other printer does and use summer rollers in summer and winter rollers in winter — and was compelled to keep his rollers clean. Now is there anything new in any of that that the pressman of only the slightest intelligence doesn't know? Was the solemn instruction to use oil for cleansing a revelation?

Possibly Mr. Neale is now satisfied that the exercising of ordinary care through ordinary intelligence and making proper changes of his rollers to suit the season will be as efficient in results as paying a man for one thing and wasting his time on another.

HERBERT M. BINGHAM,
President, Bingham Brothers Company.

FROM A GERMAN CONTEMPORARY.

The oldest and most widely circulated American trade paper is THE INLAND PRINTER, which is now in its twenty-third year. It is published in Chicago, and is recognized as a distinguished and instructive leader in the combined graphic arts. Not only the graphic arts, in their various applications, receive thorough discussion and illustrated explanation, but also the fine arts, such as painting and sculpture, have a space wherein they are fully discussed. This magazine also stimulates a great interest in binding. The exceedingly large advertising section is faultlessly set and printed. The contents of its 160 pages are all out of proportion to the price of 30 cents.— *Die Buchdrucker-Woche, Berlin, Germany.*

I DO not want to miss any of the numbers of THE INLAND PRINTER. It is a magnificent encyclopedia of information in printerdom.— *A. W. Gylander, Hoopeston, Illinois.*

Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.

SINCE my last letter the Federation of Master Printers of the United Kingdom of Great Britain and Ireland has held its annual conference at Leeds, and during the four days it lasted business and pleasure were combined in a manner that seemed to please everybody. The members of the conference were welcomed to Leeds by the Lord Mayor, and the art treasures of the city were thrown open to their inspection. The master engineers of Otley — the home of the British printing-press industry — invited visitors to visit that town and to inspect their works, and Mr. F. Payne and other leading engineers received the party. Mr. Payne can with confidence claim to be the head or "father" of the engineering business in Otley, as he is among the few now living who saw the commencement of the industry sixty years ago. Mr. David Payne, his father, was at one time partner with T. G. Dawson, who started business in 1830 as a joiner and builder. This business subsequently developed into one for supplying the wants of the stationery trade, and in 1854 the first printing machine was built by him in Otley. This was manufactured in a room that still forms part of the Ashfield Foundry, and which up to forty-three years ago comprised the whole of what is now a gigantic factory. In 1866 Mr. David Payne relinquished his interest in the firm of Messrs. Dawson, Payne & Co.— the name by which they were then known — and the older business was carried on by Mr. William Dawson and his son, Mr. T. G. Dawson, and Mr. David Payne then commenced business on his own account. Mr. Wesley Petty, the president of the Yorkshire Printers' Association, upon whom devolved the arrangements for the bulk of the proceedings, is an Otley native, having been born in that town nearly sixty years ago. At the business meeting of the conference a lot of trade matters were brought up and a discussion took place on the question of fine art copyright. A recommendation was submitted that the law in relation to fine art copyright in some parts of the British Empire prejudicially affected the producers of artistic work in this country, and required amendment, so as to give to British producers the same



THE FOUNDLING HOSPITAL, LONDON.

right and protection in the colonies as were awarded to colonial producers in this country. The resolution further urged that the Australian Copyright Act of 1905 should be so extended as to give copyright in Australia to British artistic productions whether made in Australia or not. These recommendations were adopted. While the meeting was in progress the ladies with the party had an enjoyable excursion to Roundhay Park, and in the evening the annual dinner was held. The last day's proceedings included a visit to the picturesque ruins of Fountains Abbey, and in this romantic spot a photograph of the members and their lady friends was taken. A handsome little volume, forming a program of the proceedings, was given to each member who attended the congress. It contained descriptions of the Otley machine shops, and the following extract from it should be interesting to American printing-machine builders: "The policy of the Otley engineers generally up to a recent date has apparently been to give the two-revolution 'craze' as they used to term it, its day, on the axiom 'give it rope enough and it would hang itself.' But the past ten years have shown it has not yet come to such an untimely end. During the time of the Otley inactivity, which may roughly be put down as from 1890 to 1900, they allowed the Americans to overhaul their ship with a vengeance. A peep into any of the large London printing houses to-day, a glance at the rows of Miehles, Cottrells, Hoes, and Centuries, tells its own tale of the havoc played by the American wave. Doubtless, despite all the ability which is brought into their commercial department by the Yankees (for they obviously possess some of the smartest salesmen living), that wave has spent itself. Otley woke up a few years ago to the seriousness of the position. Like a Rip Van Winkle, after ten instead of one hundred years' sleep, it began with the beginning of the twentieth century to rub its eyes and to see that it was losing its birthright for a mess of pottage, called 'Otley principle.' Having now decided to build what is wanted, whether it is the overhead feed and delivery or the two-revolution, every one of its machine shops is now vieing one with the other to cater for the demand, rather than to attempt to dictate what the demand shall consist of. The overhead feed, and the 'take-off' without anything touching the face of the sheet, is now obtainable from all the leading shops. Otley has at last found out that 'he who pays the piper ought to choose the tune.' The enterprising printer can now get built there what he wants, in the way he wants, and at the price he wants to pay, and can rest assured at securing longer life in all that Otley makes and better workmanship than anything that comes from the other side of the herring pond."

A LONDON printer has just introduced to the trade a new method of mounting stereo, electro, and other plates that seems to promise good results, as well as ensuring economy in material. The system, which is patented, consists in casting mounting blocks, from type metal, in long strips, each strip having a flat upper surface, with ribs underneath the supports. Along one upper edge is cast a flange with a rebate, and when two strips are placed together, with these flanges to the outside, they clasp the plate and hold it firmly without any possibility of lifting or being dragged off its support. The mounts can be cut to any length required for pages or other work, and the edges can be stripped with the usual shooting board to any width. There is no loss of material, as all the shavings, cuttings, etc., off the mounts, and the mounts themselves when done with, may be thrown into the melting pot and cast again. The mounts may be made by any printer who has a stereotyping plant and the inventor supplies the necessary molds — one for casting the mounts, the other for casting the plates, with corresponding bevels — and charges a royalty for their use, the printer himself does the rest. London printers who have seen the system at work speak highly of it, and there is no question as to its utility. I am unable to say whether it will be offered to American printers, but it is a thing that they would doubtless appreciate.

LEGITIMATE methods of securing customers, as understood by the past generation, have given way to new ideas as to getting a big trade, and many firms now offer the chance of securing money prizes to purchasers of their goods. This kind of thing has been done to death by the periodical press, and many proprietors have been prosecuted under the Lottery Acts for the manner in which the prize-giving has been conducted. Even daily papers have given way to the craze, and the latest method adopted is to give sums varying from $1 to $50 to the possessors of tramway, railway or omnibus tickets that bear certain numbers that are published in the following day's papers. This has caused quite a rush on the tramway and 'bus termini by youngsters, who pester the passengers for their tickets as they leave the vehicles, and already two children have been killed by being run over while endeavoring to pick up the used tickets from the street. Questions have been asked in Parliament on the matter, but the scheme is one that does not come under the law, and new legislation



IN THE HEART OF LONDON.

is asked for to put an end to a practice which is certainly not in accord with the traditions of respectable journalism.

QUITE another form of competition for money prizes is that instituted by the firm of Raphael Tuck & Sons, the well known Christmas card and fine art publishers, who have already held three competitions for valuable prizes, and now announce a fourth by offering a sum of $33,500 in connection with a post-card scheme. Over one thousand prizes are offered, and there are several sections. In the first of these, called Tuck's Post Card Chain, prizes are given to the purchasers and also to hospitals and other institutions. Under this section the purchaser of a 12-

cent packet may win a prize of $250. The second, under the heading "Home Decorations," incites the public to devise new openings, and perfect the present ways in which post cards may be used. The work sent in will be publicly exhibited at the Royal Institute of Painters in Water Colors. The third competition is of an educational character, namely: the most interesting tour taken by means of Tuck's Picture Post Cards. This is made comparatively simple in order to encourage a large number of entries. The judges in the competition include the following well-known names: Frank Dicksee, R. A.; J. McWhirter, R. A.; Luke Fildes, R. A.; S. J. Solomon, R. A.; Marcus Stones, R. A.; John H. Bacon, A. R. A.; Sir Arthur Conan Doyle, Alfred Parsons, A. R. A., and Mr. Adolph Tuck.

THE printers' Pension Corporation is being plentifully supplied with cash just now by the trade, and as the result of a dinner recently given on behalf of the funds of the institution, the amount of $28,800 was subscribed. Included in this sum was $1,500 given by Mr. William Notting to endow a home at the Printers' Almshouses.



HOUSE IN WHICH BURNS DIED.

Mr. J. R. Haworth contributed $975, the Amalgamated Press, $600, Mr. E. Festus Kelly $500, Mr. Horace Cox, the Directors of the Bank of England, the Linotype Company, and the chairman, $520 each.

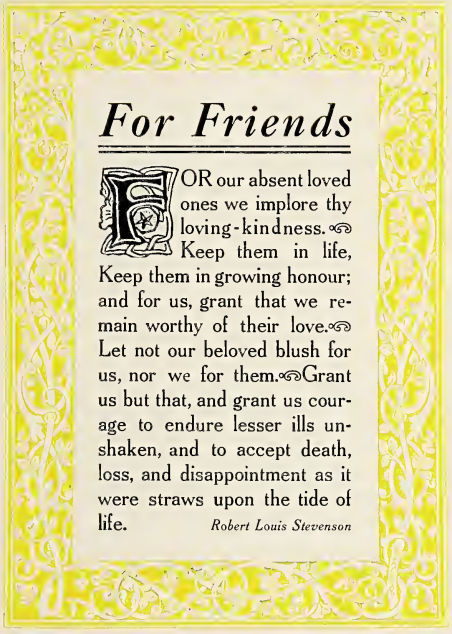
CONSIDERABLE interest is being taken by printers in the new "Caradoc" cylinder machine that is built by Messrs. Elliott & Co., Ltd., of Otley. A machine has been installed in the works of Messrs. John Leng & Co., Dundee, Scotland, and considerable satisfaction is expressed at its working. In the "Caradoc" the sheet is never touched after it leaves the form, and the interval between the printing of the sheet and the final delivery allows of the ink becoming dry enough to avoid offsetting and the necessity for interleaving. After the sheet has taken the impression it is turned by means of a gripper bar, which touches only the front margin of the sheet. The bar is then carried round by means of two wheels, which are kept in exact position by the wooden geared drum above them. This allows the entire surface of the cylinder to be left clear for making ready, and, the wheels being mounted on studs only, there is no possibility of the printed surface coming in contact with anything. After the sheet has been turned it is delivered to another set of grippers placed on a shaft set in a wooden drum, and is carried forward to the tapes on which it travels over the feed-board; then other tapes are lifted by a pair of levers, and on these tapes the sheet is conveyed to its destination. This latter motion is driven independently, and carries the sheets on to the delivery board even when the cylinder is checked. The sheet is run out at the same speed as the machine travels. Three sheets are traveling at the same time, and the first is practically dry before it reaches the delivery table.

MR. A. SAUVE, of the Canadian Composing Company, Limited, Montreal, is now in London with a Monoline composing machine of a new and improved pattern. Rooms have been taken in a turning off Chancery Lane, where the Monoline is shown at work, and already it has been visited by a number of printers, who have been greatly struck with the simplicity of the machine and its freedom from complications. As to whether it can be sold in England without touching the patents held by the Linotype Company is a matter on which an authoritative statement would be welcome, and printers are thus a little chary of investing. Rumor has it, however, that the Linotype master patents having expired, the Monoline may be freely sold, and there is also some talk of an English company being formed to handle the machine.

THE Linotype Users' Association, which is a body of master printers that use the Linotype in their offices, have just had their annual meeting, at which progress for the year was reported and the report of the association's work read: "While there has happily not been any serious dispute with Linotype operators during the period under review, there have, nevertheless, been many efforts in various parts of the kingdom to advance the rates payable, both to hand-compositors and Linotype operators, and also to reduce the working hours of the former. In these matters the committee has been able to render valuable assistance through the secretary. The secretary has visited a large number of important centers, and his intervention has been productive of the best results. When memorials from the men for increasing the rate or reducing the working hours are put forward, it is noticeable that one of the arguments invariably submitted is a quotation showing the rates payable in the building and allied trades. These rates are often slightly higher than those prevailing in the printing trade. The fact, however, can not be lost sight of that there is a considerable difference between the two trades, having regard to constancy of employment, which is much more favorable to those engaged in the production of a daily or weekly newspaper. The methods adopted by some of the local branches of both English and Scottish typographical associations may become a fruitful source of irritation in the near future. Instances have been brought to light where rates considerably in excess of the terms of agreement and working conditions have been inserted in the local rules without any understanding or agreement having been previously arrived at with the employers," and this is a matter with which the association intends immediately to deal. With regard to the output of Linotype machines it is reported that, although the men's association has been approached with a view to arriving at an equitable agreement for remunerating expert operators in accordance with their production, the executive of the Typographical Association has definitely declined to accept the committee's invitation to meet them in conference on the subject. As an instance of the necessity of combined action on the part of newspaper proprietors, it may be mentioned that in some places the Typographical Association is requiring that men now working as laborers in the machine rooms of daily papers where rotary machines are used shall be members of their association. A union has also been formed by printers' assistants, which seeks to include and regulate hours and wages for laborers in all departments in newspaper offices. Although it is not one of the immediate objects of the

association, the committee recommend common action among newspaper proprietors in these matters. In view of these facts, the question suggests itself as to whether the scope of this association should be enlarged so as to deal with these and similar questions affecting newspaper proprietors and their employees.

As I write these lines a disturbance of the peace that has now reigned for many years between the London master printers and their men is threatened, and an extensive strike may take place, not on any question of wages or hours, but from a petty dispute in a small shop. A firm of printers dismissed a foreman and the men asked that he be reinstated; the reply was the discharge of the whole of the trade-union compositors, machine minders, and printers' assistants, and the engagement of non-union men in their place. The London Society of Compositors has taken the matter up and issued an ultimatum to the Masters' Federation, that unless the discharged men are



taken back into their employment again, the whole of the eleven thousand men in the society will be called out and a general strike declared. The National Printing and Kindred Trades Federation, representing the whole of the London allied trades, have given the society their support, and unless wise counsels prevail, a few days hence will see practically the whole printing trade of London at a standstill. A meeting of the Master Printers has been held at Stationers' Hall, but the proceedings were strictly private. It is understood, however, that it was agreed to send a communication to the Compositors' Society couched in conciliatory terms.

FULL TO OVERFLOWING.

The poet (fervently) — Ah, the world is full of poetry.
The editor — So is the waste-basket.—*Philadelphia Record.*

5-6

JOB COMPOSITION

Under this head will appear each month suggestive analysis and criticism of reproduced and reset specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

Vest-pocket Manual of Printing. 50 cents.

Specimens of Business Cards and Tickets — sixteen-page booklet — 25 cents.

Specimens of Envelope Corner Cards — twenty-four-page booklet — 25 cents. New second edition.

Modern Letterpress Designs.— A collection of designs for job composition from the *British Printer*. 60 cents.

Specimens of Letter-heads.— Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

Menus and Programs.— A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

American Manual of Typography.— New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. $4.

Alphabets, Old and New.— By Lewis F. Day. Second edition, revised and enlarged. A historical work on lettering in all ages. $1.35, postpaid.

Impressions of Modern Type Designs.— Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

Portfolio of Specimens of Printing.— The second of the series, composed of a wide range of commercial work in pure typography. 50 cents.

Beran: Some of His Work.— Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. $3.

Specimens of Bill-heads.— Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

Lectures for Apprentices.— Reprinted from The Inland Printer. Comprises General Work, Commercial Work and Stonework. 56 pages, fully illustrated, 10 cents.

Modern Book Composition.— By Theodore Low De Vinne. A thoroughly comprehensive treatise on the mechanical details of modern book composition. Cloth, 12mo, 477 pages, $2.

Plain Printing Types.— By Theodore Low De Vinne. A treatise on the processes of typemaking, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, $2.

The Stoneman.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1, postpaid.

Art Bits.— A collection of proofs selected from odd issues — half-tones, three-color prints, engravers' etchings, etc.— neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, 50 cents.

Title Pages.— By Theodore Low De Vinne. Treats the subject from three standpoints — Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, $2.

The Principles of Design.— By Ernest Allen Batchelder. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, $3.

Twentieth Century Cover-designs.— Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. $5, prepaid.

Lettering for Printers and Designers.— By Thomas Wood Stevens. A comprehensive treatise on the art of lettering, with many modern examples, together with tables and measurements valuable to constructors of advertising matter. $1, postpaid.

Correct Composition.— By Theodore Low De Vinne. A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.

Hints on Imposition.— By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins. Full leather, 4 by 6 inches, flexible. $1.

The educational advantages to be gained by the comparisons and criticisms incident to a competition in job composition are so numerous, and the benefit to be derived

therefrom so extensive, that another contest of this character has been decided upon. Many changes from the former methods of conducting these competitions will, however, be made. The most important of these changes will be the offering of prizes for the specimens awarded first and second places in the contest.

The composition of a letter-head has been decided upon as furnishing an adequate opportunity for the display of the artistic ability of the various competitors, and this will be taken as a subject for the contest. The copy selected is as follows:

The Century Store Systems Company, distributers of Century Autographic Registers and Supplies. Sales registers for triplicate bills with folded detailed record or summary record. Manifolders for duplicate, triplicate or quadruplicate copies of invoices and bills of lading. Printed and plain rolls for book typewriters and all makes of autographic registers. Chicago, 112 Johnson building. St. Louis, 386 New Era building. New York, 842 Manhattan building. (To be dated at Chicago.)

The rules which will govern the contest are as follows:

Not more than one specimen to be submitted by any one contestant.

Two copies of each specimen must be furnished. These copies must be printed with black ink on white stock, 5½ by 8½ inches in size, and must be printed the 8½-inch way of the stock, with the intended margins shown at top and sides. The copies may be printed on a proof press, but the proofs should be carefully taken in order that they may be available for reproduction.

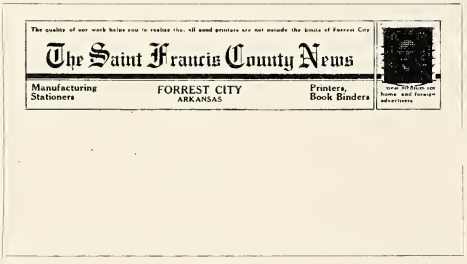


Fig. 1.

No illustrative cuts will be allowed. Material used must be limited to type, border, rule, and such cuts and ornaments as are furnished by typefoundries in series or as parts of border and ornament fonts.

Specimens must be mailed, without folding, to The Inland Printer, Job Composition Department, and must reach this department not later than September 15. The name and address of the contestant must accompany each package.

No restrictions will be placed on the use of rule and panel work, thus allowing all the latitude possible for the exercise of originality in design. The fact that only two copies of each specimen are necessary and that these copies may be printed on a hand press will open the competition to many compositors who are not in a position to have a number of copies printed. Care must be taken to have all the specimens reach this department on or before the date of closing, as those arriving after that date will be thrown out.

A copy of "The Principles of Design," by Ernest Allen Batchelder, will be awarded to the contestant whose specimen is given first place and for the specimen awarded second place a complete set of the specimen books issued by The Inland Printer will be given. This set includes the following: "Specimens of Business Cards and Tickets," a sixteen-page booklet; "Specimens of Envelope Corner Cards No. 2," a twenty-four page booklet; "Specimens of Letter-heads," printed in one, two and three colors and with tint-block effects; "Specimens of Bill-heads," containing suggestions that are applicable to every-day requirements, in one, two and three colors, on a variety of colored papers; "Menus and Programs," a collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers.

ENVELOPE CORNER CARDS.

Although the printed corner cards on envelopes were originally designed as a device to aid the postal authorities in the safe return of mail which for any reason failed to

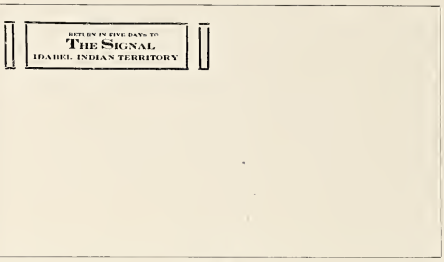


Fig. 2.

reach the person to whom addressed, the usage of the present day has caused the printed envelope to be considered as an advertising medium — so much so, in fact, that the chief concern of the printer is the best use of this advertising feature. Instead of making his first consideration the aid of the postal service by the use of corner cards which are uniform in style, size and position, he strives to produce something which will place the name of the sender before the public in an attractive manner. And this is necessary, for much of the advertising literature of to-day is judged on the merits of the enclosing envelope, and if that is attractive the contents are examined, while if it is the reverse it is unceremoniously thrown into the waste-basket without being opened. As a result, instead of the plain name and address of the sender, placed on the envelope to insure its return without the necessity of a trip to the dead-letter office, the printing now varies from the small professional card to the advertisement which covers both sides of the envelope and even crowds the spaces reserved for the stamp and address. In cases where the envelope contains advertising matter this elaboration is



Fig. 3.

permissible, but for ordinary business stationery the corner card is the proper method.

The placing of a time limit on the envelope for the return of mail if not delivered is optional with the sender. If the time limit is given the mail is returned at its expiration; otherwise it is returned at the end of thirty days. The corner card should be placed about eighteen points from the edges of the envelope and should be set to

the measure of furniture — preferably fifteen picas wide. This is for the purpose of facilitating the locking up of the form, and as it takes no more of the compositor's time and materially assists the stoneman it should not be neglected. Where a panel arrangement is used, with a panel for the stamp, care should be taken that this panel conforms to the shape and size of the stamp. Fig. 1 is a sample of carelessness in this respect and is but one of

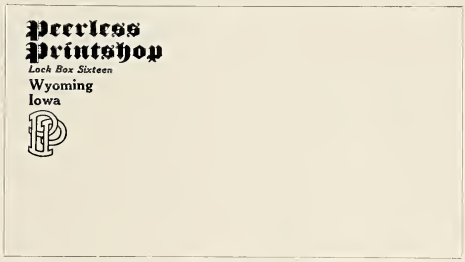


Fig. 4.

many which reach this department. To arrange an envelope of this character, spend considerable time in its composition and then print it in such shape that the placing of the stamp will not only look bad but will cover part of the reading matter, is seemingly inexcusable. If the printing on an envelope will warrant the making of panels and a more or less intricate design, it will certainly warrant the slight additional trouble necessary to see that such design is correct and answers its purpose. A little thing, possibly, but if worth doing at all it is worth doing well.

Many envelopes are now printed in two, three, and even four colors, with elaborate tint-block designs, and while

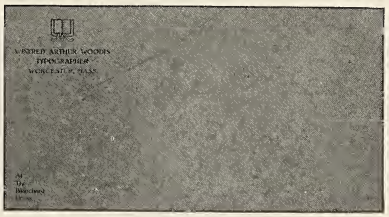


Fig. 5.

some printers give much thought to the color combinations, how many think of the effect of the stamp on the color scheme? Another small thing — and the first argument against it is that stamps vary in color. This is true, but the envelope printed to form an enclosure for an advertising circular will carry a one-cent green stamp, while the regular commercial envelope will nearly always carry a two-cent stamp. If it is worth while figuring on a color scheme for an envelope, and especially one on which the printing approaches or runs around the stamp, the effect of this stamp should be taken into consideration.

The practice of constructing meaningless panel designs is in vogue in corner cards as well as in other forms of printing. Fig. 2 is an example of this style of work. Even though the rule design possessed merit or beauty, the mechanical defects are such that it could not be considered in comparison with a plain, neat corner card. Design or ornamentation which is not constructed with a definite object in view or which does not fulfil a definite purpose is valueless and should not be used. In this instance the panels at the ends consumed the major part of the time required to set the whole job and, after all, detract from the finished appearance rather than add to it.

A proper consideration for proportion, ornamentation and the use of color is found in Figs. 3, 4 and 5. Fig. 3 is printed in black and red, the initial in the feature line being in red. On Fig. 4 the line showing the postoffice box and the monogram are in orange, the balance being black. Fig. 5 is printed in reddish-brown and yellow-green on light-brown stock, the type matter being in brown.

THE TYPESETTING MACHINE FOR THE COUNTRY PRINTING-OFFICE.*

This is a business topic, and I shall endeavor to treat of it in a business-like way. Neither the subject nor the occasion calls for "fine writing." If I go sufficiently into detail to make this treatise of value to my fellow publishers, it will be long to the verge of weariness without wasting either time or space on embellishments.

The time has been, and not so very long ago, when hand composition was so cheap in the country that machines were out of the question — not thought of. Apprentices were to be found in nearly every country office, and nearly every country town had a surplus of resident printers of varying degrees of proficiency, but usually fairly good at straight casework. But those days are gone, in Texas at least. I am told that in the Northern and Eastern States case hands, both youths and maidens, of fair intelligence and proficiency may still be had for $3.50 to $6 per week. But the booming Southwest is so full of all manner of development enterprises offering rich rewards for brain and brawn that anything less than $10 a week is no temptation to a young man who has sufficient intelligence to hold a job in a printing-office. To say that $10 a week is unreasonably high wages for such service would not be true; and yet, very few country printing-offices can afford to pay that much for hand compositors. And $10 a week, mind you, is now the minimum wage in Texas. Twelve to fifteen dollars are more common.



J. LINN LADD.

This scarcity of good compositors and the weariness and vexation of spirit caused by the large proportion found to be inefficient, often indifferent and sometimes cankered with vice, caused me to take up, some three years ago, consideration of the question of installing a machine in my office; and if I can give you in fifteen minutes the benefit of my three years of investigation, I may in some measure justify the committee who gave me this assignment.

The first machine investigated by me was the Simplex typesetting machine, manufactured by the Unitype Company of New York and Chicago. And right here let me say that if you want the machine side of the argument placed before you in its most seductive form — or rather forms, for they have legions of them — just write the Unitype Company, Chicago, Illinois, that you are interested in the problem, and they will do the rest. They are the most per-

* A paper read before the Texas Press Association, at Corpus Christi, on June 7, 1906, by J. Linn Ladd, of the Bay City *Tribune*.


One of the illusions is that the present hour is not the critical, decisive hour ~ Write it on your heart that every day is the best day in the year
Emerson

sistent " follow-up " people on earth. And in all the tons and tons of advertising matter that will find its way into your postoffice box, you will not find a dull line. Their advertising man, whoever he may be, is an artist. For three years I have read every line they have sent me, and I have never found any of it tiresome.

And yet, I did not buy a Simplex machine. I visited Orange, Victoria and San Angelo to see the Simplex; I talked with men from Illinois, Minnesota and Ohio who had owned the Simplex and had it at work in their offices, and I corresponded with men at Jennings, Louisiana, who had the Simplex lying idle in their offices (one in each office there), because they could not get satisfactory service out of them, and this was true also at Orange. At Victoria the Simplex gives fairly good and economic service. At San Angelo and Dublin its owners are delighted with it.

MILLER PRINTING CO.
PRINTERS :: BLANK BOOK MAKERS
Phone Central 2990

John R. Miller Manager
428 Washington Street, Philadelphia, Penn.

At the end of two years of investigation my conclusion was that in a dry atmosphere, like that at San Angelo or Dublin, the Simplex will always prove a joy and delight; and that in a moderately dry air, like that at Victoria, it will beat hand composition. But in a damp atmosphere, and especially in a salt-laden atmosphere, the Simplex is a dismal failure. The reason is apparent. The distribution cylinder, carrying the type in perpendicular channels, rapidly revolves over a stationary cylinder having like perpendicular channels with ridges to fit the characteristic nicks in each letter; and the instant a letter is whirled over its own peculiar channel it should drop, by its own weight, into its place. In order to do this, the type must be perfectly dry and the channel, with all of its ridges or tongues, must be bright and smooth. The slightest moisture will cause the bottom type to adhere to the next one above, and thus it will fail to drop. The smallest particle of rust in the channel will cause it to clog up.

During the two years that I was investigating the Simplex, I was also getting what information I could obtain about the Linotype and the Monotype machines; and as soon as I became convinced, much against my inclination, that the Simplex would not work satisfactorily at Bay City, I took up the study of the other machines with renewed vigor. But I was never able to figure a profit out of the Standard Linotype for my office, or any other single country office, for that matter. The machine, metal and installation cost $3,250 to $3,600. After paying $600 to $750 down, the monthly instalments required by the company are $66 each, with interest. Operating expenses are $85 to $110, making, with the instalment note, a monthly drain of $150 to $175 on the cash resources of the office. A large and constant run of bookwork or outside composition might enable a country office to stand this drain; but where is the country office that can count upon these conditions for thirty-six consecutive months? And remember, if you default in one payment, the Mergenthaler Company will protest your note and exercise its option to declare all notes due and foreclose its mortgage. Of course the man who has the cash to pay for his machine can avoid the mortgage pitfall; but even then, hand composition will be more economical in most country offices.

I was much interested in the Monotype machine and went to see one in operation; and it just took me three-quarters of a minute by the watch to determine that no man who has anything else to look after has any business with a Monotype machine. It does beautiful work and does it fast; but the Linotype machine is as simple as a meat-ax when compared with the Monotype.

Up to this point in my investigations I had been led to believe that the Linotype Junior was a failure — a mere makeshift gotten out to bluff off the Simplex, and I had not given it any serious consideration. But just as I was about to give up hope of finding a machine adapted to my conditions I heard of a Linotype Junior that was in successful operation in a Mexican office in San Antonio. Straight to the Alamo City I went. I found the Mexican to be an intelligent, cultivated and exceedingly courteous gentleman. He told me that when the machine arrived he had tried in vain to get one of the machinists from the English offices to set it up for him, and he finally unpacked it and installed it himself. All of his employees were Mexicans, and two of them operated this machine, each working nine hours, so that it ran eighteen hours a day.

Upon further investigation I learned that the Junior had been much improved since this Mexican had bought this machine, and I finally contracted for a Junior. It was installed last September and has proved to be a money-saver in my office. In fact it is easily paying for itself. My foreman who, however, is quite a mechanical genius, soon acquired a speed of about a galley of leaded eight-point an hour. The monthly payment is only $30, and it easily saves more than that much in the composition bill.

Seventh Annual Concert of the Milwaukee Musical Association
East-Side Hall, Monday Evening, August 26


Perhaps I should state here that the Mergenthaler Company restricts the Junior to thirteen ems measure and to one style of type-face in only two sizes, six-point and eight-point. Of course this is to keep it out of competition with their standard machine, as far as possible.

And this question of competition reminds me that in the midst of my long period of typesetting machine investiga-

tions I visited the World's Fair at St. Louis, and there saw all the machines, side by side; and the most interesting one among them was the Monoline machine from Canada. It was almost as flat of top and about as high as an ordinary table, and occupied floor space of about 2½ by 4 feet. It is much simpler than the Simplex or Linotype Junior. It casts a deeper cut and prettier slug than the Linotype, and was easily and quickly adjustable to any size of type or length of line. The operator in charge told me that this machine sells in Canada at $750 to $1,100, but that it could not be sold or used in this country till the Mergenthaler Company's patent on the slugcasting device expires. But it made my mouth water and almost made my eyes water to see this $1,100 Canadian machine so very superior to our $1,500 American machines, and apparently superior to our $3,000 machines, beyond the reach of a free-born American citizen.

The Simplex machine costs $1,500 for a thirteen-em machine and $1,700 for an adjustable machine setting any measure up to thirty ems pica. It will handle type of but one size body, but three sizes of face can be put on this body; for instance, eight, nine and ten point faces can be put on a ten-point body, giving the effect of solid ten-point, nine-point leaded with one-point leads and eight-point leaded with two-point leads. And ordinary leads may be put between all these lines if desired, as the machine handles the leads automatically. The type for the Simplex is just any ordinary type and costs regular price per pound, with four cents extra to have it nicked to fit the machine channels. The first payment required on a Simplex is $250 and the subsequent payments are $25 a month with interest.

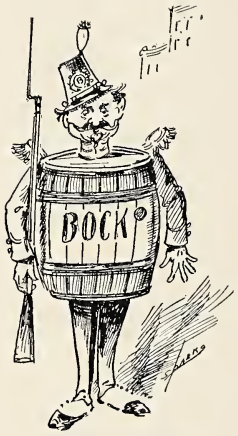
The Linotype Junior costs $1,500, $250 down and $30 a month and interest for thirty-five months and then the remainder, $200, the thirty-sixth month. Either of these machines will pay for itself in any country office that employs more than one case hand. Indeed, if the editor of the paper, who employs one man to do the job and ad. work and another to do the case-work, cares to operate the machine himself, he can soon learn to do his writing upon it as readily as upon the typewriter, and in this way do both his editorial work and his typesetting in one operation, and thus pay for his machine with the wages he would have paid the one compositor. In addition to the $250 to be paid down on the machine, $200 will have to be paid for say five hundred pounds of type, in case Simplex is purchased, and $100 for one thousand pounds of Linotype metal in case the Linotype Junior is purchased, and in either case the expense of freight and installation will be about $50.

The Simplex machine breaks some type, but this is about offset by the deterioration of the Linotype metal, which loses something by way of vapor and skimmings every time it is remelted. In order to equal the speed of the Linotype Junior, the Simplex operator must have a boy or girl to justify the lines for him, as this has to be done by hand; but this expense is about offset by the cost of keeping a fire constantly burning under the melting pot of the Junior.

Which of these machines, then, would I advise you to buy? That depends. If you are in a reasonably dry country, buy the Simplex. It does prettier work — individual types always do prettier work than slug type — and in most country offices it sets type fast enough without a boy or girl to justify, and it will set any measure up to thirty ems pica. Besides, the payments are easier. If your atmosphere is damp or salt, by all means buy the Linotype Junior. In towns of good size, like Cuero for instance, having two prosperous dailies, their proprietors might find it advantageous, I fancy, to jointly purchase a Standard Linotype, employ a machinist operator, and use it each for an hour at a time, alternately. This suggestion, however, is speculative; all that goes before it has been dug out of the sure mine of experience.

Of course power must go into the office along with typesetting machines, if it is not already there. Very little power is required; one-half horse-power will operate a Standard Linotype, and half that much will run a Simplex or a Junior. A small water motor is a good source of power. An electric motor would be my second choice, but the gasoline engine is not to be sneezed at, and it has become so cheap as to be available in any office anywhere.

Now in conclusion permit me to say that if the words "I" and "my" seem to occur in the foregoing with suggestive or monotonous frequency, it is because the writer believed that the value to his fellow publishers of what he might say upon the subject would lie in the fact that it is the sum and substance of the personal observation and experience — not of his own particular ego, but of a typical country publisher.



THE MILWAUKEE SENTINEL.
— *Printers' Ink.*

TEXAS PAPERS BAR FREE NOTICES.

The following resolution was adopted by the Texas Press Association at its recent convention at Corpus Christi:

WHEREAS, From time immemorial there has been an idea in some remote quarters that a weekly newspaper is public property, to be used as a free horse by all organizations, social, religious and otherwise, and that no charge should be made for publishing various and sundry notices; therefore, be it

Resolved, That it is the sense of the Press Association that all notices of entertainments, of whatever character, where the object is to raise money, and all resolutions of sympathy, cards of thanks and notices of that nature, come under the head of legitimate advertising and should be paid for; and this association, in behalf of reputable and progressive journalism, would urge that its members and all publishers demand, as a business proposition, that such matter be so regarded and so paid for.

THE KIND OF PRINTER THAT SUCCEEDS.

I had the good fortune to secure one of your books on the "Mechanism of Linotype," and it has proved a great help to me in my care of two machines. As I had no factory experience, and only a few weeks' instruction from an operator, you can imagine what a help Mr. Thompson's book was to me. I saw the ad. in the rear in regard to THE INLAND PRINTER, so I am sending you $1.50 for a six months' trial.— *Thomas F. Flynn, Northampton, Massachusetts.*

PROOFROOM

BY F. HORACE TEALL.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PUNCTUATION.— By John Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, $1.

PENS AND TYPES.— By Benjamin Drew. A book of hints and helps for those who write, print, teach or learn. Cloth, $1.25.

BIGELOW'S HANDBOOK OF PUNCTUATION gives full information regarding punctuation and other typographical matters. Cloth, 50 cents.

ENGLISH COMPOUND WORDS AND PHRASES.— By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, $2.50.

PUNCTUATION.— By F. Horace Teall. Rules have been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, $1.

COMPOUNDING OF ENGLISH WORDS.— By F. Horace Teall. When and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, $1.25.

TYPOGRAPHIC STYLEBOOK.— By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

THE ORTHOEPIST.— By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, $1.34, postpaid.

THE VERBALIST.— By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4¾ by 6½, $1.32, postpaid.

VEST-POCKET MANUAL OF PRINTING.—A full and concise explanation of all the technical points in the printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

ONE HUNDRED AND THIRTY-FIVE THOUSAND WORDS SPELLED AND PRONOUNCED.— By John H. Bechtel, author of "Handbook of Pronunciation," "Synonyms," "Slips of Speech," etc. For practical needs of busy people and for quick reference this book will be found invaluable. 614 pages; cloth, $2; leather, $2.50, postpaid.

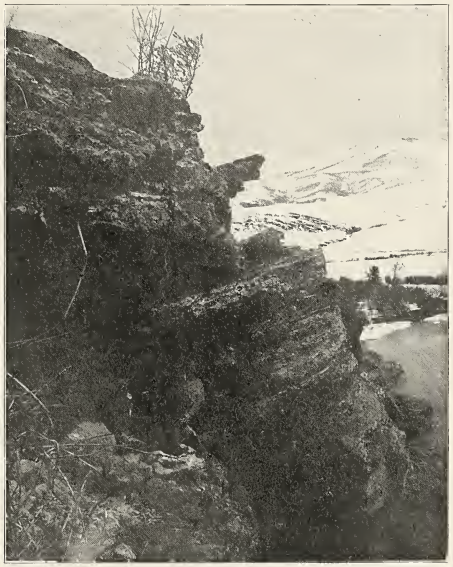
PROOFREADING AND PUNCTUATION.— By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typefounding, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, $1.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.14.

GRAMMAR WITHOUT A MASTER.— By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who have never studied grammar at all, will find it especially suited to their needs. Cloth, 4¾ by 6½, $1.07, postpaid.

THE ART OF WRITING ENGLISH.— By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will impel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, $1.50.

THE "SPLIT INFINITIVE."— A. G. S., Springfield, Massachusetts, writes: "I am reading proof for editors who write the 'divided infinitive,' but when transposition is queried they usually consent, perhaps realizing that it is smoother and more acceptable to eye and ear. I inclose a clipping from a newspaper, printed presumably to indicate and warn against infractions of its 'style,' for I have noticed that its writers heed the admonition. [This is the admonition: "Don't separate the parts of infinitives, or needlessly separate the parts of verbs. Say 'to begin again,' not 'to again begin;' say 'probably will be,' not 'will probably be.'"] But when I turn to the printing trade's finest and best monthly, THE INLAND PRINTER, I find the division sanctioned by several examples therein. I always have thought such separation improper, so my question is, Which is right, and why? if grammatical reasons can be given." *Answer.*— Some of the people who are very careful about such matters of form insist that it is never right to split the infinitive, and others just as careful, and fully as well able to decide, say that sometimes it is better to do so. In reading proof I should not trouble myself much about it, unless instructed to make it always one way. Continual querying of the one thing might easily wear on the editor's patience. Professor Lounsbury is one of the closest students of the language. He says, on page 444 of his "History of the English Language:" "The use of *to* with the pure infinitive is exceedingly rare in Anglo-Saxon; but, as we have just seen, it has now become so general that, with the disappearance of the special gerundial form, the preposition itself has almost come to be regarded as belonging to the infinitive. Hence there has been evinced, on the part of many, a marked hostility to the tendency, which has displayed itself widely in modern English, to insert an adverb between the preposition and the infinitive, for the sake of greater emphasis or clearness. This practice, examples of which go as far back, certainly, as the fifteenth century, has now become very common. In spite of the opposition

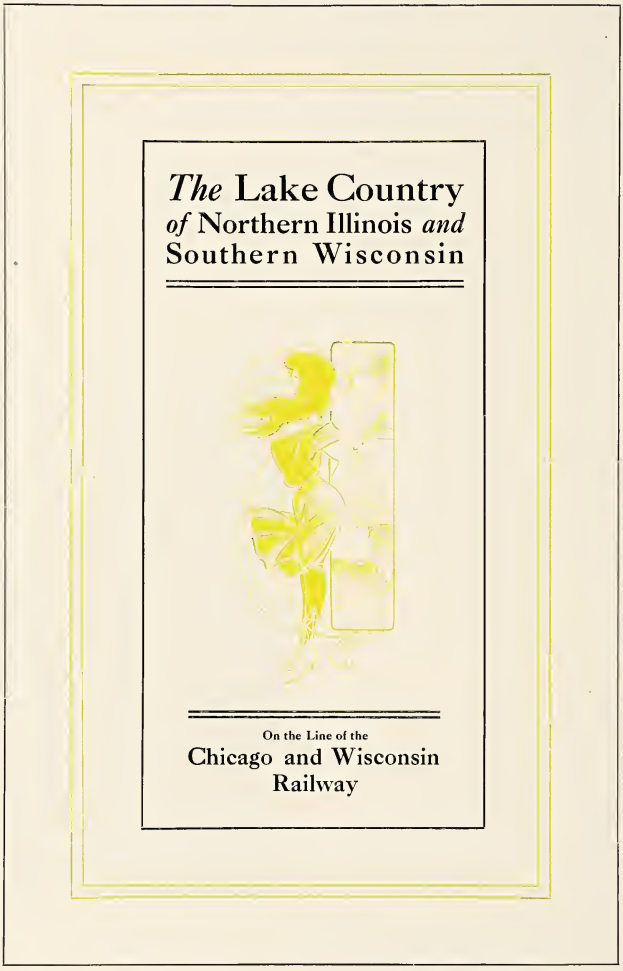


COLORADO MOUNTAIN SCENERY.
Photo by E. M. Keating.

it encounters, there is little question that it will establish itself permanently in the language." Alfred Ayres says: "Careful writers and speakers separate *to* from the infinitive mood only when they have some special reason for doing so;" and it is true of a great many careful writers, though not of all. It is an excellent rule for any one to follow, though an occasional infraction is not half so bad as some people say it is. The instructions in the clipping included some absurdities like the following: "Don't use the word 'matter' when you can avoid it;" "Don't use

'very' when the sentence means the same without it, as it does in most cases. A good rule is not to use 'very' oftener than once a week." There is not a better word in the language than the two thus tabooed, though it is true that they are both used too freely.

APROPOS OF SPELLING REFORM.— A pamphlet with this title, by F. Sturges Allen, deals with spellings in *ae* or *e*, *oe* or *e*, and *ei* or *e*, and presents a table of words showing authoritative preferences, begun, says the author, "in the hope that it might lead to some results or conclusions that would be of value," and certainly showing that the classes chosen are amenable to simplification in more ways than one. Mr. Allen says: "The renewed activity in the discussion of spelling reform, and of the best means of furthering its progress, has suggested to me the wisdom of a rather exhaustive discussion of the subject from the standpoint of what must be done to bring it about, and of what would be the advantages, and the obstacles and disadvantages, involved in the reform. The subject is rather hackneyed in its general aspects, to be sure; and it is not easy to treat of it without being diverted either by the levity or ridicule with which the matter is dismissed by some, or by the somewhat hysterical advocacy of reform of others who are extreme in their pessimism about our present system of spelling."



About fifteen hundred words are contained in these lists, and they are printed with the longer spellings, probably because that is the only possible way to have them all alike. All of them would undoubtedly be always written thus if everybody believed it best to preserve original forms, for such spelling would be etymological in every case. But some of these words long ago lost the letter that is phonetically useless, and it would be simply impossible to restore it, if any one wished to do so. On this point Mr. Allen says: "The words given are written in their alphabetic order, with the double-vowel form in each case, although this involves giving under that form numbers of words, such as oenigma, oeconomy, which are now seldom or never so printed except as a use due to personal idiosyncrasy, an affectation of the archaic, or some reason for the nonce. No question arises as to the spelling of such words as are a part of the general vernacular and popular literature, such as enigma and economy. Should a general phonetic spelling be discussed, they would then come under consideration; but their present spelling is fixed, and there is no general consciousness of the existence of any other form."

The table shows the preferences of six dictionaries: the Oxford English Dictionary (known as Murray's), Webster's International, the Century, the Standard, and Dunglison's and Gould's Medical Dictionaries. It discloses some facts rather startling, for instance a prevalence of spellings like haemal, haematic, etc., in the Webster's International, though the Webster Unabridged preferred hemal, etc., all through. Of such words the International has seventy-seven in the longer form and seventy-two in the shorter.

How were these differences decided in making the dictionary? They do not show a reason that applies all through. In general, it seems to be settled that scientific words should retain the original spelling and others should be simplified. But the line between scientific and vernacu-

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A Brief Description of This Fertile Country

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lar is not fixed. The other dictionaries show similar differences, and the variations are not the same in any two.

Mr. Allen has gone further than the dictionary records. He has examined many books and states the number in which he found one spelling, as against the number of those with the other spelling, counting each book but once. He found the spelling faeces in 15 English and 12 American books, and feces in 15 American books; foetus in 73 English and 63 American, and fetus in 15 American; haemorrhage in 113 English and 184 American, and hemorrhage in 143 English and 140 American; oesophagus in 288 English and 182 American, and esophagus in 8 American. His conclusion is that British usage prefers the longer forms with practical unanimity, and that American usage prefers them as a whole (excepting of course vernacular and purely literary words), but in the cases of certain terms the situation, so far as shown by the preferences of the dictionaries, is in doubt. He is of the opinion that a change which would simplify the spelling of the words is most desirable (meaning a change that would make them all alike), and also that there is no likelihood of any general agreement, or even of a majority agreement, in favor of *e* instead of *ae* or *oe*, at any time in the near future.

The opinions are expressly stated as merely indicated by the study as recorded in the pamphlet, and the following questions are suggested for answer by every one who is interested enough to answer them:

"1. Is the advantage to be derived from a change from the *ae* and *oe* forms to the *e* form sufficient to make it advisable for Americans to spell with *e* when the British forms are in *ae* and *oe*?

"2. Is there any reason for shifting to the *e* form in some classes of these words and not in other classes (to spell, for example, Achean, edile, Egean, Eolian, pretor, esthetic, homeopathy, but Aegerian, Aeneid, Aesopic, monoecious, paean, taenia, etc.)?

"3. What steps is it practical to take now toward simplification of these spellings?

"4. From the practical, common-sense point of view, which spelling ought American writers and educators to favor?

"5. Should the dictionaries give the preference to *e* forms when usage does not, without indicating that usage prefers the *ae* and *oe* forms in those cases?"

These questions can not be answered as directly applying to the list, when the full list is not at hand; but satisfactory answers may be made on the basis of experience and practice without the list. Opinions on the questions in general will be gladly received by the editor of this department. Please write to him, as fully as seems desirable, also saying whether diphthongs should have the form æ or œ, or separated letters.

INK WITH SOFT EDGES.

A printer from the backwoods entered the office of one of the leading manufacturers of printing-ink one day and laying a fine vignetted half-tone and an engraver's proof of same on the counter, asked:

"Do you sell printing-inks of all kinds here?"

"Yes," answered the salesman.

"Well," continued the customer, "I want a can of ink that will shade off at the edges like this does."

SINE QUA NON.

We still look for the arrival of THE INLAND PRINTER month by month and can fairly style it as the *sine qua non* of all young and progressive typographical artists.—*Joseph Porter, Weston-Super-Mare, England.*

PRESSROOM

BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.— See Process Engraving.

PRESSWORK.— By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, $1.50.

THE HARMONIZER.— By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, $3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.— By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.— Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

PRACTICAL GUIDE TO EMBOSSING.— By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.— By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

SIZE FOR GOLD LEAF.— M. R. S., Cincinnati, Ohio, writes: "Will you kindly tell me what kind of sizing is best for gold-leaf work on satin cloth? I have tried regular gold size, but this does not hold the leaf." *Answer.*— Yellow gold size is best for gold-leaf printing. To this add gloss varnish and coach Japan quite freely. Allow the work to dry at least forty-eight hours before handling.

DIFFICULTY WITH INK DRYING ON LEATHER.— G. R. H., Winchester, Virginia, writes: "I am having trouble to get printing-ink to dry on leather. Kindly advise me what to do or to put in the ink. I have tried turpentine and drier and neither of them will work quick enough or dry out hard enough." *Answer.*— If you will use Coach Japan varnish, you will have no difficulty. Of course if you are printing on an enameled leather surface, time must be given for surface drying.

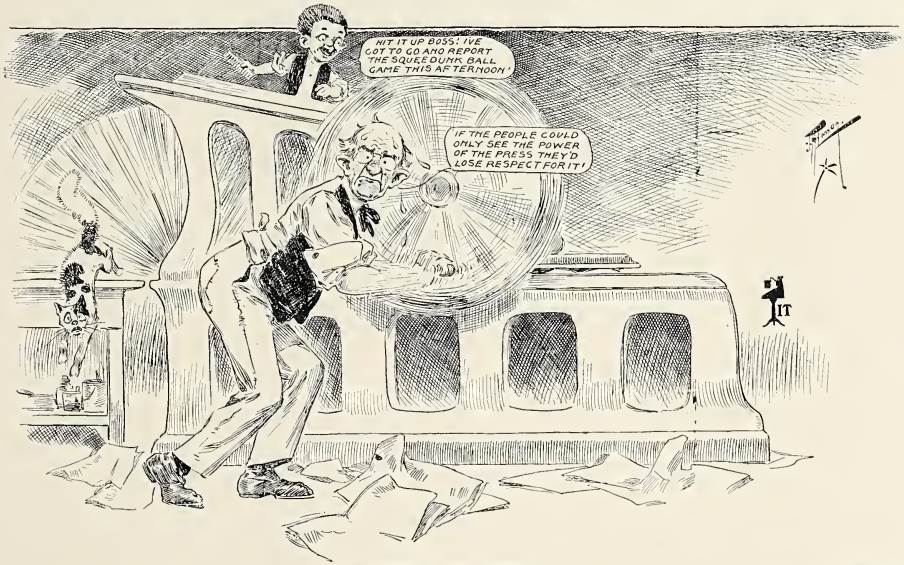
A CRITICISM.— E. M., New Orleans, Louisiana, writes: "I enclose herewith a copy of a job done in this office, the composition being done by one of our journeymen printers and the make-ready and presswork being executed by me. I respectfully request that you express your opinion of same." *Answer.*— The specimen submitted is handsomely executed. The job has been carefully handled and received considerable make-ready. Especially is this shown in the

cover, which is run in white, green, bronze and black on red stock. Such specimens of booklet printing and illustration do credit to the workmen.

Metallic Tinsel for Post-cards.— R. W., Helena, Montana, writes: "Being a constant reader of your valuable journal, I am taking the liberty of asking you how the glittering outlines on the enclosed post-card are accomplished. Can this work be done on a job press? Also, by what method is it applied, and where can this material be obtained?" *Answer.*— The picture is first printed and then a separate form is run with a special sizing for work of this kind. The glittering material is metallic tinsel for post-cards and can be obtained from manufacturers of bronze powders in all colors, by stating that it is intended for use on such work. It may be applied the same as bronze, except that no brushing or rubbing should be done; simply dust on the powder and allow it to dry. The work can be easily done on an ordinary job press.

Sheet Wrinkling on a Cylinder Press.— M. H., New York city, writes: "I would like to hear your opinion on how to overcome the trouble of wrinkling of a sheet on a cylinder press. The sheet in question is 24 by 36 book paper and the form is made up of only a heavy wooden border that covers the edge all around the sheet. I tried resetting the grippers and I only use as many grippers as is necessary to take away the sheet, but the wrinkle still remains." *Answer.*— Wrinkling of the sheet is most commonly caused by excessive impression, though such forms as you speak of are at times very troublesome, it seeming next to impossible to overcome a slight wrinkle in the sheet at different points. It is not advisable to loosen up the grippers to overcome a wrinkle in a sheet, except when it appears at the gripper edge of the stock. In such cases loosening or spreading the grippers will often obviate the difficulty. After all make-ready has been applied (and this to a medium hard packing), hang a sheet of pressboard between the sheet-bands and the cylinder, fastening it to the rod which supports the bands. Then set the bands up snugly to the pressboard, so that they will iron the sheets out smoothly while they are passing around the cylinder. It should be further noticed that the sheets leave the feed-board perfectly flat.

Slurring on Job Press.— C. P. M., McPherson, Kansas, writes: "I enclose herewith a few samples of rule-work done on a 13 by 19 Universal press. On each one of these jobs, and with all other similar rule forms, we have difficulty with slur at top and bottom of form. The press is in good condition, does register work, and we have no trouble whatever in this respect with type and cut forms. The slur never shows in center of form, but always at top and bottom, and works toward the inside; that is, the top and bottom of form slurs in opposite directions. We have tried every remedy we know of to overcome this difficulty, but with no success. It is not the fault of baggy tympans, as we have stretched them tight, experimenting with both hard and soft packing. We have run with and without grippers with the same result." *Answer.*— The trouble complained of is a common one where large rule forms are printed on job presses, and is caused quite often by air being caught between the platen and sheet in making the impression; the open blanks between the rules allowing the air to raise the paper imperceptibly. Get as close to the metal of the platen as possible by using a cardboard next to the metal and one sheet of strong manila drawn over it. These should be made fast to the platen even to the extent of gluing card and draw-sheet to it if necessary. In fact, this method is used with good results in offices where any quantity of this work is done; it being next to impossible to pull the top sheet taut and have it free from air or buckle when the clamps only are used. All make-ready should be done sparingly, and mainly by underlaying, so as to secure an even height to the surface of the form. To add to the efficiency of this make-ready, pieces of cork should be pasted to the grippers at suitable places,



"THE POWER OF THE PRESS." — *Monotypit.*

particularly at top and bottom of the sheet where the slur appears, so that when the platen is leaving the impression the sheet will be held taut to the platen by the grippers. Strong cardboard extensions may also be fastened to the grippers and the pieces of cork pasted to these at convenient places in the form, so that the cork heads may rest on some part of the furniture in the form when making the impression. Such a slur is also caused by the form rollers bearing too heavy against the form. Measure the trunnions at the end of the rollers, also the rollers; if they are too large a strip of cardboard may be securely pasted on the tracks which support the trunnions. This will raise the rollers slightly and compel them to revolve in the proper manner.

even in a general way by means of a mark-up overlay, the cut overlays should be applied. The strength of the cut overlay to be employed depends largely upon the nature of the subject, some requiring only a two-ply cut-out, while it is necessary to use three-ply on others. Take, for instance, machinery or other subjects taken from wash-drawings; these most invariably require a three-ply cut overlay to obtain satisfactory results. Vignetted cuts require special treatment, both in underlaying and overlaying, in order to blend the edges successfully. Before any attempt at overlaying is done on vignetted cuts, the pressman should see to it that the edges do not print higher than the center of the cut, and also that the cut lies firmly in its position, without spring or rock. Some of the



MAKE-READY ON HALF-TONES.— A. J. H., Louisville, Kentucky, writes: "Will you kindly tell me through the columns of THE INLAND PRINTER the proper method for making ready on half-tones? I have had a great deal of trouble with work of this kind, especially vignetted cuts, which seem to print heavy around the edges after a few hundred impressions. Also, when a press lifts on a heavy form, is it best to add a few sheets of soft paper to the tympan?" *Answer.*— The make-ready on half-tones varies considerably according to the nature of the work in hand. It is first essential that the cuts receive proper inking and the required amount of pressure be applied. When the forms are large and contain several cuts, they should all be brought up to uniform height and so that the form rollers will have a contact of about two picas when passing over them. This being done, the packing is next in order, and it should be so constructed as to require about eight sheets of medium weight book-paper for the temporary dressing. At this point the make-ready proper begins, and quite frequently the question arises as to how strong the impression should appear before starting to mark out an overlay. This should be about as heavy as it is intended to run the job and not two or three sheets more pressure than when the full and complete make-ready has been applied. By this method the weak places are readily observed by the operator, which enables him to mark up intelligently. After the impression has been brought up most common causes for cuts working badly are: too much general impression, excessive overlaying or underlaying, form rollers set too low, loose or spongy packing, etc. Any of these conditions will cause vignetted cuts to show thick edges, though the cuts may not show any unusual wear on short runs. When the cylinder of a press lifts to any great extent, it is advisable to carry a few sheets of soft packing beneath the draw or top sheet; also the cut overlays should be made lighter, so as to not bear off to any degree.

KEEPS ABREAST OF THE HOUR.

I deem THE INLAND PRINTER in a class by itself — the only real expositor of the printing art of to-day. One learns from it what one can get nowhere else, because it covers the whole field and keeps abreast of the hour, and each of us workers is limited to his environment.— *Charles H. Darlington, Phoenixville, Pennsylvania.*

TO REMOVE RUST FROM TOOLS.

Immerse them over night in a saturated solution of bichlorid of tin, which will cause all spots to disappear. In the morning wash them with soapy soda water and wipe them. For further cleaning, pure alcohol and chalk may be used, but this is not indispensable.

Question Box

This department is designed to furnish information, when available, to inquirers on subjects not properly coming within the scope of the various technical departments of this magazine. The publication of these queries will undoubtedly lead to a closer understanding of conditions in the trade.

A Trade Paper on Ad.-Writing.—O. D. S., Winchendon, Massachusetts: "Will you please give me the address of some good trade paper on ad.-writing?" *Answer.*— *Profitable Advertising*, published in Boston, Massachusetts, contains information on this subject.

Rubber Stamp Outfits.— B. R., Tonopah, Nevada: "Can you advise me of some concern that makes a specialty of selling outfits all complete for making rubber stamps?" *Answer.*— Pearre E. Crowl Company, 1 East German street, Baltimore, Maryland, can supply you.

Roller Embossing Machine.— S. C. E. Co., St. Louis, Missouri: "We are in the market for a roller embossing machine, and would ask if you can give us the names of parties manufacturing them." *Answer.*— The Fuchs & Lang Manufacturing Company, 29 Warren street, New York city.

Test for Ground Wood in Book Papers.— P. L. R., Austin, Texas: "Will you please give me the test for detecting the presence of ground wood in book papers?" *Answer.*— A liquid composed of a teaspoonful of anilin phosphate dissolved in four ounces of water when applied to paper containing ground wood will turn it a bright yellow.

Lithographed Advertising Blotters.— The U. P., Nyack, New York: "Will you kindly inform us where we can get lithographed advertising blotters for advertising purposes?" *Answer.*— The Goes Lithographing Company, 226 La Salle street, Chicago, and the Monasch Lithographing Company, 500-510 South Fifth street, Minneapolis, Minnesota, are prepared to do this class of work.

Corporate Seals.— McK. P. Company, Butte, Montana: "We are desirous of obtaining supplies for making corporate seals. Will you send us the address or turn this letter over to some house that handles supplies of this kind?" *Answer.*— C. H. Hanson, 44 Clark street, Chicago, can furnish you with the supplies for making corporate seals and can also supply you with the seals.

Patent Medicine Almanacs.— The R. L. B. Company, Columbia, South Carolina: "We contemplate using an edition of one hundred thousand to two hundred thousand ordinary patent-medicine almanacs. As our capacity is limited we would be pleased to have you advise us of the names of parties equipped for this class of work." *Answer.*— The Matthews-Northrup Company, Buffalo, New York.

Gummed Labels.— L. E. R., Kansas City, Missouri: "I desire to obtain the address of manufacturers of gummed labels like sample enclosed." *Answer.*— The following firms manufacture gummed labels: Randolph Box & Label Company, 33 South Clark street; H. H. Willson & Co., 329 Dearborn street; Tablet & Ticket Company, 87 Franklin street, and Story Finishing Company, 215 South Clinton street, all of Chicago.

Inks Used in Dorsey Insert.—J. T. P., St. Louis, Missouri: "Can you advise us the name, number and make of the inks used on the Inland Type Foundry inserts in the June Inland Printer, especially the page showing the Dorsey series?" *Answer.*— The Dorsey insert in the June Inland Printer was printed with medium brown ink, made by Levey, and rich deep red, by Ault & Wiborg. The tint was half opaque white and half Hellmuth's mixing white, Levey's medium green and Okie's bronze-blue.

Novelty Show Cards.— F. W. W., Los Angeles, California: "Can you favor me with the address of the actual manufacturers of what are called novelty show cards? They are advertised largely by Sullivan & Co., Chicago, but they are not real headquarters. Cards are 11 by 14, printed from wood blocks." *Answer.*— The following firms manufacture show cards: American Calendar Company, Milwaukee, Wisconsin; R. J. Kittredge & Co., corner Green and West Superior streets, Chicago, and Chicago Show Card Works, 269 Dearborn street, Chicago.

Elastic Padding Glue.— G. C. D. S. Company, Cincinnati, Ohio: "Can you give us a recipe for making an elastic padding glue, such as is used by blank-book manufacturers and bookbinders?" *Answer.*— You can buy this glue from any bookbinders' supply house cheaper than you can put it up yourself. The Arabol Manufacturing Company, 100 William street, New York city, makes all kinds of glue compositions and gums. If you desire to experiment, take three pounds of hide glue and melt with one pound of English gelatin and add one-half pound of glucose and four ounces of gum fir. These last you can increase or decrease according to your requirements for slow or quick drying. A cheaper glue may be made by using bone instead of hide as the base.

Stamping Presses.— A. G. L., Brisbane, Australia: "Can you tell me how to get in touch with a manufacturer of stamping presses which do such work as gold and silver printing on ribbons, leather, etc? The machine is entirely



different from and works faster than the ordinary binder's press. There are only two in Australia, but the owners guard very jealously the name and character of the machines." *Answer.*— Inquiry fails to develop any regular manufacturer of special machines for this line of work, the ordinary binders' stamping presses being mostly used in this country. There are several types of these, those manufactured by the Seybold Machine Company, Dayton, Ohio, the Standard Machinery Company, Mystic, Connecticut, and the T. W. & C. B. Sheridan Company, Chicago, Illinois, being the most prominent. The American Stamping & Embossing Company, 21 La Salle street, Chicago, has a special stamping and printing machine for ribbons, which was built especially for that firm.



Photo by E. M. Keating. THE REAL WESTERN COWBOY.

RUBBER STAMP MATRIX COMPOUND.—R. W. H., Everett, Washington: "I read your magazine regularly and consider it 'perfection' in everything pertaining to the printing art. I am in the printing and rubber-stamp business and at present am having some trouble in mixing my dextrin and water so that it will prove effective. I followed your information in THE INLAND PRINTER last month, but it will not set when I mix it with the plaster, but remains soft." *Answer.*— Many of the largest rubber stamp manufacturers are using yellow dextrin, in proportions of one pound to each gallon of cold water. Such a gluten water will give entire satisfaction if the proper matrix compound is used. You are probably attempting to produce results with an inferior home-made compound. The trouble is not caused by the dextrin gluten water. You should use some standard compound, manufactured by a reliable dealer in stamp supplies. The Pearre E. Crowl Company, Baltimore, Maryland, and The R. H. Smith Manufacturing Company, Springfield, Massachusetts, manufacture compounds and rubber stamp supplies.

"FAKE" COLORWORK.—C. W. M., Mexico City, Mexico: "We are enclosing herewith a picture, which we understand is 'fake' colorwork. We have occasion to get out a lot of this work and are not certain as to the mode of procedure. We have been told that ordinary coated paper is used for this purpose, having the required tints applied to the paper with an air-brush before printing, and subject is then printed on this prepared paper from the ordinary half-tone plate, after which the sheets are run through the press between two sheets of coarse sandpaper and 'roughed,' which last process destroys all traces of screen." *Answer.*— The opinion of critics to whom the enclosed colorprint was submitted seems to be that this is photogravure work, although similar results may be obtained by printing from a half-tone plate. Two printings are required, one from a flat or grained tint-block to produce the tints, the three colors being obtained by dividing the ink fountain, and the half-tone being printed in black either before or after the tint, in the former case using transparent colors. The stippling is usually done in a special roughing machine, although an inferior result may be obtained by a third impression from rough sandpaper.

PROCESS ENGRAVING

BY S. H. HORGAN.

In this department, queries regarding process engraving will be recorded and answered. The experiences and suggestions of engravers and printers are solicited. Address, The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

REDUCING GLASSES, unmounted. 35 cents.

PENROSE PROCESS YEAR-BOOK, 1905-6. $2.85 postpaid.

THREE-COLOR PHOTOGRAPHY.— By A. von Hübl. $3.60 postpaid.

PHOTOENGRAVING.— By W. T. Wilkinson, revised and enlarged by Edward L. Wilson, New York. Cloth, $3.

PHOTOENGRAVING.— By Carl Schraubstadter, Jr. Cloth, illustrated with numerous diagrams, and provided with a copious index. $3.

DRAWING FOR REPRODUCTION.—A practical handbook of drawing for modern methods of reproduction, by Charles G. Harper. Cloth, $2.25.

LESSONS ON DECORATIVE DESIGN.— By Frank G. Jackson, S. M. in the Birmingham Municipal School of Art. Elements, principles and practice of decoration. Cloth, $2.

THE HALF-TONE PROCESS.— By Julius Verfasser. A practical manual of photoengraving in half-tone on zinc, copper and brass. Third edition, entirely rewritten; fully illustrated; cloth, 292 pages; $2, postpaid.

THEORY AND PRACTICE OF DESIGN.— By Frank G. Jackson. Advanced text-book on decorative art; sequel to "Lessons on Decorative Design"; explaining fundamental principles underlying the art of designing. $2.50.

DRAWING FOR PRINTERS.— By Ernest Knaufft, editor of *The Art Student* and director of the Chautauqua Society of Fine Arts. A practical treatise on the art of designing and illustrating in connection with typography for the beginner as well as the more advanced student. Cloth, $2.

PHOTOENGRAVING.— By H. Jenkins. Containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapter on the theory and practice of three-color work, by Frederic E. Ives and Stephen H. Horgan, the frontispieces being progressive proofs of one of the best exhibits of three-color work. The whole is richly illustrated, printed on highly enameled heavy paper, and bound in blue silk cloth, gold embossed; new edition, revised and brought down to date; 200 pages. $2.

PHOTOTRICHROMATIC PRINTING.— By C. G. Zander. To learn the first principles of three-color work there is no better book than Zander's "Phototrichronatic Printing." The photoengraver or printer who attempts colorwork without understanding the laws of color phenomena will waste much time and money. To supply this elementary knowledge is the purpose of Mr. Zander's book, and it is done in a thorough manner without scientific complexity. Fifty pages, with color-plates and diagrams. Cloth, $1.

PRIOR'S AUTOMATIC PHOTOSCALE.— For the use of printers, publishers and photoengravers, in determining proportions in process engraving. The scale shows at a glance any desired proportion of reduction or enlargement, as well as the number of square inches in the proposed cut. It consists of a transparent scale, 8 by 12 inches (divided into quarter-inch squares by horizontal and perpendicular lines), to which is attached a pivoted diagonal rule for accurately determining proportions. A very useful article for all making or using process cuts. $2.

THE PRINCIPLES OF DESIGN.— New ideas on an old subject. A book for designers, teachers and students. By Ernest A. Batchelder, Instructor in the Manual Arts, Throop Polytechnic Institute, Pasadena, California. This book has been designated as "the most helpful work yet published on elementary design." It clearly defines the fundamental principles of design and presents a series of problems leading from the composition of abstract lines and arcas in black, white and tones of gray, to the more complex subject of nature in design, with helpful suggestions for the use of the naturalistic motif. There are over one hundred plates. Published by The Inland Printer Company, $3.

COST AND SELLING PRICE OF PHOTOENGRAVING IN CHICAGO.— Mr. George H. Benedict, Chicago, writes Mr. Gamble as follows: "For several months we have kept an accurate record of the number, size and shop cost of all the zinc etchings and half-tones we have turned out. In the shop cost we include wages, material, rent, power and light, but not the cost of any work charged as extras, or any portion of the office expense. The result is, the shop cost of all half-tones was 9 cents per square inch, the average cost per cut was $1.48, but it is certain that cuts under the average size cost less per square inch and more per cut. Our theory is that the approximate cost of a half-tone of any size is one-half the average size per cut, plus one-half the cost per square inch, and by combining the square inch cost and the average cut cost we have the true proportion of a fixed charge and a square-inch rate, and a consistent selling price that will afford one hundred per cent profit on the shop cost, and allowing seventy-five per cent for operating expenses, advertising, etc., a net profit of twenty-five per cent. Using even figures, and assuming that a fair day's work for each photographer and the crew to complete the cuts is as follows, the result of basing the selling price on a fixed charge of $1.50 per cut plus 10 cents per square inch is: Twenty 10-inch cuts at $2.50 each is $50 for a day's work (or two hundred square inches at 25 cents per square inch); sixteen 25-inch cuts at $4 each is $64 for a day's work (or four hundred square inches at 16 cents per square inch); twelve 50-inch cuts at $6.58 each is $78 for a day's work (or six hundred square inches at 13 cents per square inch); ten 80-inch cuts at $9.50 each is $95 for a day's work (or eight hundred square inches at 11⅞ cents per square inch). From this it will be seen that $2.50 each for 10-inch cuts would be less profitable than 80-inch cuts at 11⅞ cents per square inch. As to zinc etchings: The result of our investigations is that the cost per square inch and per cut is approximately one-half the cost of half-tones. It is, therefore, reasonable that to afford an equal profit, zinc etchings should be sold at one-half the price for half-tones."

MR. C. G. ZANDER.— From our valuable French contemporary, *Le Procedé*, we take the following portrait and sketch of one who has been frequently mentioned in this column and who is known to process-workers in color everywhere. Mr. C. G. Zandér was born in Vienna in 1861. He received a solid scientific education, settled in England in 1880, where he soon began to specialize in the making of colors and colored inks. For thirteen years he has been connected with the firm of A. B. Fleming & Co., the Scotch ink-makers. His book on "Photo-Trichromatic Printing," published in 1896, attracted attention to him as an authority on the subject. He has since that time been invited to lecture on the subject of three-color procedure before important scientific bodies. He has also written much on the subject. His researches in three-color photography and experiments in the manufacture of inks for printing in three colors has led him to the belief that four colors instead of three are necessary to the proper reproduction of the colors of nature by photo-mechanical means.



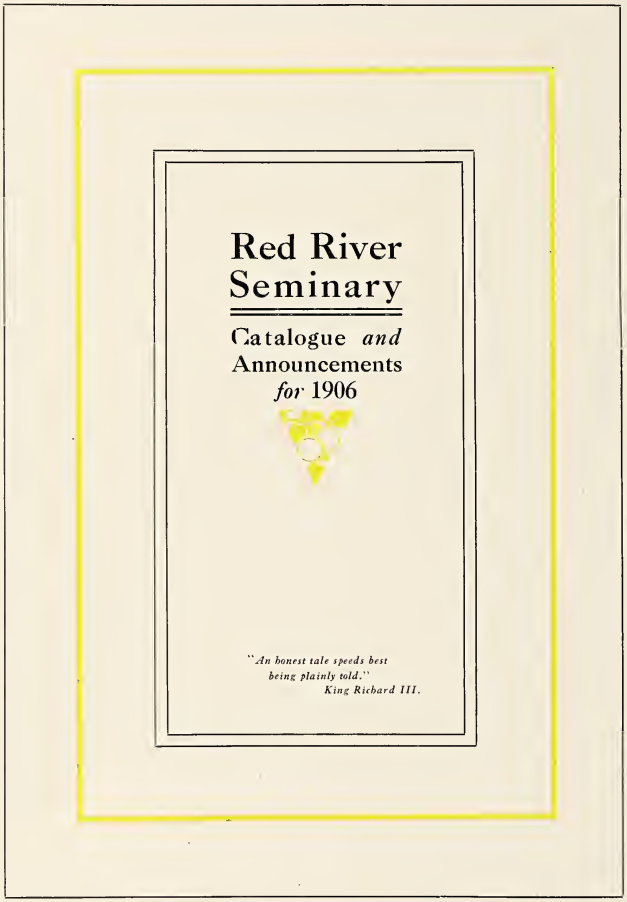
MR. C. G. ZANDER.

AN INEXPENSIVE REDUCER FOR HALF-TONE NEGATIVES.— Gustav R. Mayer, Buffalo, New York, writes: "I have received so much valuable and helpful information from your column that I feel that I should do a little in return. Here is an inexpensive reducer that does away with two

expensive chemicals, iodin and iodid of potassium. The method was published first by Professor Namias. I have had it in constant use on line and half-tone negatives for the past year with satisfactory results. The formula I use is as follows:

Potassium permanganate	8 grams	123 grains
Sulphuric acid.....	80 c.c.	2¾ ounces
Water.....1,000 c.c.		36 ounces

Dissolve the permanganate in the water and while constantly stirring slowly add the acid. Use agate-ware or porcelain vessel, as sulphuric acid has a great affinity for water, producing so much heat that it is liable to break a glass vessel. To make the reducer I take one part of the above stock solution to thirty parts of water. Keep in a glass-stoppered yellow bottle. To use the permanganate reducer, expose, develop and fix the negative in the ordinary way. Wash the negative well and flow the reducer over the negative until it is sufficiently cut. Should a faint bluish fog appear, this is due to the reducer being used too weak, and can be removed by flowing the negative over with a weak cyanid of potassium solution. This bluish fog will turn to a yellow stain after intensification if not removed. After the negative is reduced, rinse well, intensify twice with copper and silver, and blacken with sodium sulphid. Should a yellow stain appear after intensifying, use a weak solution of iodin and cyanid to remove it before applying the sodium sulphid. Yellow stains are liable to occur when the collodion is too thick. Not more than five grains of cotton to the ounce is required with this reducer. Naturally some practice is required to judge the half-tone dot before intensification, but a few trials on defective negatives will overcome this. This reducer is especially useful in the case of a slight overexposure in the high lights, as it dissolves the deposit between the high-light dots more rapidly than the middle tones or the shadow dots. As to the comparative cost, six ounces of iodin solution cost about 20 cents; eighteen ounces of permanganate solution will do the same amount of work at a cost of about 1 cent. As all kinds and conditions of copy are given the engraver to reproduce, there are cases where the best results are obtained with iodin and cyanid, but from personal experience, about seventy-five per cent of the negatives can be reduced with permanganate. Sometimes for a week we do not use a drop of iodin solution, as has been proven during the past year."



TROUBLE WITH ENAMEL LIFTING. — A. D. Griffin, Portland, Maine, writes: "I am troubled with my enamels. When etching the enamel lifts and when drying over the gas stove I can blow it off from the shadows. It seems to hold on the high lights. I have six or eight formulas, all of which were all right until about two months ago. I have been using them about fifteen years. I have tried every way to remedy it without any results whatever. Can you give me any information and what will it cost for the same?"

Answer.— The enamel leaves the plate for one of the following reasons: The plate is not absolutely clean to receive it. The enamel is acid and etches the plate before being dried on it, thus leaving a slight oxid between the film and the solid metal. The enamel is too thick and is not burned in sufficiently. While etching the perchlorid of iron is used too weak and the plate is washed off so frequently with water that the latter finally softens the enamel. To clean the metal plate, it should be treated to a bath of clean lye, to remove any grease, and the polish on the surface taken off with fine willow charcoal. Use a neutral or alkaline enamel, letting

the first that is poured on the plate flow off and carry away the water, avoid the other causes of trouble mentioned above and the enamel will not leave the plate. Personal replies are made by mail when a fee of $1 is sent.

THE SCHULTZE HALF-TONE SCREEN.— The manager of a bank-note company in New York asks: "There was published somewhere an account of a new half-tone screen with the lines ruled at an angle other than the usual right angle. Great things were promised for it. Can you let me know where I can find out more about it, the title of the screen, name of the inventor, or where it is in use?" *Answer.*— In this department of THE INLAND PRINTER for September, 1904, page 864, the screen you inquire about was referred to as being patented in Germany and Great Britain in 1903 by Arthur Schultze, of St. Petersburg.



THE SCHULTZE SCREEN AND DIAPHRAGM.

The screen lines crossed at an angle of 60° and the diaphragm used with it had apertures disposed at the corners of an equilateral triangle. U. Ray claimed for it that it was possible to use the screen in one position when making three-color half-tone negatives and not get any of the moire pattern. Previously the best angle for the screen was 90°. Mr. William Gamble, who saw some of the results made by the Schultze screen, said that they gave a smoother and more pleasing effect than the ordinary cross-line screen. An example of half-tone made by the Schultze screen will be found in the last *Penrose Annual*, page 24.

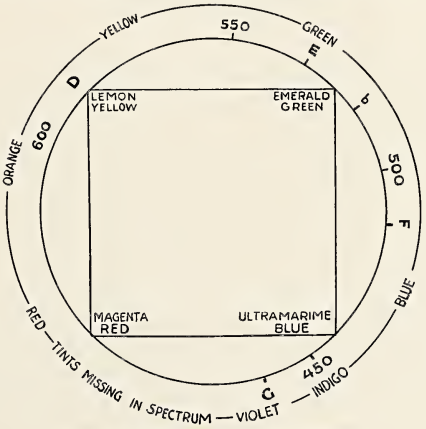
ZINC SENSITIZING TAUGHT IN SCHOOLS.— Here are the excellent instructions given to the students of the London County Council School by the principal, Mr. A. J. Newton: A piece of zinc is taken, usually that known as straight polish. The soft variety is best because it etches quickly. It may be cleaned to remove the grease by means of a scrubbing brush and pumice powder, by felt pad and pumice powder, or by means of a piece of American engraver's charcoal, which should be kept in a basin of water. Then rinse the plate thoroughly well and rub over with a clean sponge. It is then put on the whirler and flowed over with the sensitive solution, made up as follows:

Albumen (white of egg).....	100 c.c.	1 ounce
Fish glue	15 c.c.	144 minims
Ammonium bichromate	15 grams	130 grains
Water .....1,000 c.c.		20 ounces

The eggs are carefully broken and the white separated from the yolk. For each 100 c.c. of albumen wanted take 120 c.c. (or for 1 ounce take 1¼ ounce) and whisk well until the whole of the liquid is frothed, and then allow to stand for some hours. Remove the scum left on the surface of the liquid, and measure out from the remainder of clean albumen the amount required. The bichromate is dissolved in the water, the glue added, and the albumen, well stirred and thoroughly mixed, then filtered twice. This solution is flowed on the plate and allowed to run away down the sink. Then the plate is again coated, the excess this time being run back into a filter or an excess bottle. The plate is then rapidly whirled, taken off the whirler and dried by holding film upward over a small bunsen-burner flame. Directly the solution commences to dry, it should be blown, so that it dries perfectly even and does not leave markings. The negative is then warmed, dusted and placed in contact with the coated plate, film to film. Then put it into a special pressure frame and expose it to light.

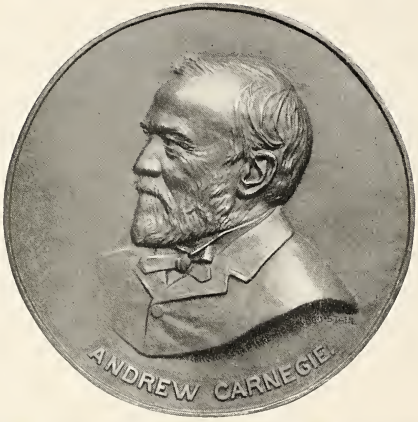
THREE-COLOR OR FOUR-COLOR.—G. R. Davis, New York, writes: "Being much interested just now in color-printing in a certain line, some experiments I have concluded leads me to believe that four colors instead of three are necessary to get the proper balance of color. I was therefore pleased to see in the March INLAND PRINTER that Mr. Zander now favors four colors instead of three. I note that you do not approve of his new process, still I am sure your readers would like to know more about it. Anything further you will print on the subject will be highly appreciated by at least one admirer of the INLAND PRINTER." *Answer.*— Ten years ago the writer devised a method of applying photography in color to the fast printing-press, but found it better to use four printings instead of three, so that he agrees with Mr. Zander. His criticism was that Mr. Zander will find difficulty in convincing a pressman that to print a job in four colors is a simpler proposition than to do the same job in three printings. Mr. Zander describes his four-color process on page nine of *Penrose's Pictorial Annual* for 1905-06. See paragraph "Zander's Four-color Process."

ZANDER'S FOUR-COLOR METHOD.—In connection with query regarding Mr. Zander's method and his portrait, the reason he gives for his departure from the three-color method is of interest. He says: "In my studies to find ways and means to overcome the defects and shortcomings of the three-color printing process, I reasoned that if the materials were perfect, or nearly so, and yet the results were imperfect, the cause of the failure must lie in the philosophy of the process. It was with great reluctance that, failing everything else, I at last set myself to find out whether the Young-Helmholtz theory of color vision on which the three-color process is based was really the best basis for photo-mechanical reproduction, or



ZANDER'S FUNDAMENTAL COLORS IN THE SPECTRUM.

whether some other color scheme worked out would produce better results. I did find another color scheme which in actual practice yields far superior results to the famous Young-Helmholtz color theory, as far as the range of colors and other effects are concerned. The Young-Helmholtz theory of color vision assumes three fundamental colors, by mixture of which in various proportions all colors of nature are to be matched. The theory on which I base my process of photo-mechanical color reproduction assumes and uses not three but four fundamental colors, namely, red, yellow, green and blue, by mixtures of which in suitable proportions any colors in nature can be matched or reproduced. The hues of these four fundamental (or monochromatic) colors in popular terms may be approximately described as follows: Magenta red, emerald green, lemon yellow and ultramarine blue. It will be found



Bas-relief portrait in bronze made by the Rockwood-Stahl Photo-sculpture Process.

that magenta red (I use this name for the lack of a more scientific one) is one of the constituent colors of spectrum red (magenta red + yellow) and also of spectrum violet (magenta red + blue)." Should the spectrum be arranged in a circle instead of a straight line, the diagram shows that Mr. Zander's fundamental colors are found at the corners of a square drawn inside the circular spectrum. He groups his four fundamental colors into two pairs of complementary colors, namely, red and green, yellow and blue.

HONORS FOR AMERICANS AT THE INTERNATIONAL EXHIBITION AT BRUSSELS.— The Beck Engraving Company, Philadelphia, was awarded a gold medal, and the Franklin Company, of Chicago, a silver medal for their exhibits of color reproductions at the Brussels Exhibition. The Perry Pictures Company, of Massachusetts, received a silver medal for their half-tone reproductions.

GOES HIM ONE BETTER.

In a late issue of THE INLAND PRINTER I read a notice of a subscriber stating he had complete files of the journal for the past ten years. I think I can go him one better. The first copy of my file complete and up to date is October, 1888. Have accumulated them in about a dozen States. This should show you my appreciation of your efforts to give us a first-class journal.— *J. A. Kreitler, Boston, Massachusetts.*

MACHINE COMPOSITION

BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

THE LINOTYPE, 1897. By Frank Evans, 100 pages. $3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.— Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.— By E. J. Barclay. 64 pages. $1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.— By S. Sandison. 36 pages, vest-pocket size. Price, $1.

STUBBS' MANUAL.— By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, $1.

THALER KEYBOARD.—An exact counterpart of the latest two-letter Linotype keyboard, made of metal and with movable keys; a practical device to assist Linotype students. Price, $4, plus expressage, 55 cents.

CORRECT KEYBOARD FINGERING.— By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FASCIMILE LINOTYPE KEYBOARD.— An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HISTORY OF COMPOSING MACHINES.— By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record — 1822 — down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines — Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, $3; cloth, $2; postpaid.

THE MECHANISM OF THE LINOTYPE.— By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Vise-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, $2, postpaid.

MR. H. T. JOHNSON, of the Canadian-American Linotype Corporation, Ltd., the Toronto Type Foundry Company, and the Canadian-American Machinery Company, of London, England, has been elected a member of the Institution of Mechanical Engineers, a fitting honor to a quarter of a century's activity in the solution of the question of mechanical composition in particular and printing machinery in general.

LOSS IN MELTING LINOTYPE METAL.—F. J. McK., Boise, Idaho, writes: "We are endeavoring to find out what is a fair loss for Linotype metal per year or month. We have four thousand pounds. We melt every day, averaging four hundred pounds per day. The metal is never allowed to

get too hot and is handled in such a way that the loss from the machines to main metal-pot is small. What would be a fair loss under above conditions." *Answer.*— This is a subject on which very little data is obtainable, as the conditions under which the metal is melted vary considerably. Probably ten per cent would be a fair estimate of loss per annum. Of course it would go considerably higher if the metal were burned in the melting or not properly cleaned at that time, while it might be less under the conditions you name.

Poor Alignment.—P. A. A., Sterling, Illinois, writes: "There is a machine here that turns out a very peculiar slug. The face does not run parallel with the body of the slug; it inclines upward toward the right end and the letters on the right end have the tops entirely missing. Using a brevier face on a solid slug, there is sometimes as much as three points below the letters on the right end, and the tops of the letters are cut off entirely, making a very poor print and impossible to do a job set on two or three slugs. In other ways, the slugs are fine — perfectly solid and good clear face. What is the cause of this?" *Answer.*— The trouble is due to the misplacement of the aligning plate on the mold. Loosen up the screws which hold it and press the plate upward.

Broken Keybar.—J. S., Flushing, New York, writes: "The lower keybar, where the comb-spring fits in, is broken on my machine. Which is the best and easiest way to put in a new one without taking the keyboard off the machine? What parts will I have to take off? The lower part of the keyrod I took out, but the part that fits in the trigger is in yet, which leaves the key very weak, three or four cap. E's dropping at the same time. If I take the cam-yoke frame off, will that help any, or the comb-springs and banking-bar? The screws in the back cam-yoke frame are in so tight that I can not move them." *Answer.*— You can remove the broken keybar by taking off the back cam-frame and then removing the banking-bar, taking the precaution before you do this to clamp a strip across the keybars below the banking-bars. On machines of a late pattern there is an auxiliary bar which acts as a support when the banking-bar is removed. In these machines there will be no danger of the keybars falling when the banking-bar is taken off. The broken part can then be lifted out and a new one substituted. If the screws in the cam-frame are tight, use a long screw-driver and turn the screw-driver with a monkeywrench.

Lower Distributor Box.— W. G. L., Battle Creek, Michigan, writes: "(1) What are the adjustments for the lower distributor box? The escapement pawls allow two matrices to go through at once, and should a number accumulate in the box, all will slip over the pawls. I could not adjust it by the cam lever adjusting screw. (2) What causes the projection on the upper end of the keyboard rod, which engages the verge in the upper magazine, to break? Three or four have broken in the six months the machine has been installed, always on the lower-case side." *Answer.*— There should be a clearance of but one sixty-fourth of an inch between the points of the male and female pawls in the lower distributor box. If the point on the male pawl is bent backward more than this it will not separate the matrices. (2) The breaking of keyrods is unusual. Some local condition which we are unable to judge must be causing the breakage.

Old Machines and New Ones.—One of the recent graduates of the Machine Composition Branch of the Inland Printer Technical School writes of his experiences on a trip through the East: "I have had all kinds of experiences since I came East. I went to a little Massachusetts town and set up a second or third hand square-base machine of the vintage of 1890. It was moved on a sled and in transit was tipped off and the first elevator cam broken. I took it all apart and cleaned it up right for a start. I had to drill out most of the oil-holes. The worst thing the matter with it was that the second elevator in coming down struck against the first elevator cap, and had jammed the end of the second elevator bar, and it would shear the combinations off the matrices. Then the distributor bar had been repaired (?) with a file. If the combinations were the least worn they would drop anywhere, 'e' and 't' in particular. The magazine escapements were all worn out and did not work good at all, but think I could have fixed it in time, but I was fired because I *couldn't set enough*, and the old machine would not run ten minutes without something happening. I pity the next one. The next machine I struck was one of the very latest double-deckers, quadding-out attachment and everything. I was right there with the goods, though. The fellow said he liked me first-rate, as 'I seemed to know how to look after the machine.' I worked in several places and am at present working in Boston and getting along pretty well. Thanks to your coaching, I haven't got stuck yet on the mechanism."



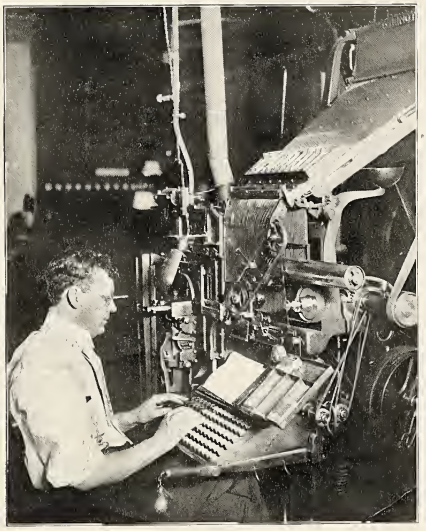
H. H. TROMLEY. B. L. EISENBREY. MISS ELVIRA JOHNSON. G. M. MACAULAY. E. M. BURTNETT.

RECENT GRADUATES, MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

Distribution in Double-deckers.—W. J. R., Cincinnati, Ohio, asks for information on this subject, which we hope readers of this department can supply. He says: "I have operated and taken care of machines almost continuously for fourteen years, and up to the present time have not been so completely 'stumped' as I am on a double-decker. While I have been able to remedy any defect that has arisen in the past, this two-magazine proposition can produce twice as much nerve-wrecking cussedness as any one-magazine machine ever thought of, were

the think proposition clearly defined. The machine in question has been run two years, and it is only within the past few weeks that the latest trouble has begun to develop. There seems to be something out of adjustment with the box just at the point where the two sets separate, one for the upper and the other for the lower magazine. Occasionally one of the letters from the upper set drops down into the lower box. This occurs with a new matrix as well as one that has been in use for some time. I have closely observed the action of the machine and have not been able to discover anything that seemed to be out of alignment. It is strange. When several of the matrices that have wrongfully descended to the lower box are taken out and placed upon the bar for redistribution, they pass on into their respective magazine just as if they enjoyed the little trouble they had caused and appreciated their new environments. It is aggravating. Another thing, we have a set of long primer that runs into the lower magazine. In the old machine it gives considerable trouble with the distributor, or rather in dropping from the bar into the partitions. We have shifted the partitions according to all known rules, and recently there was a man here from the factory adjusting a Rogers attachment on the new machine, and he observed that the adjustment was correct, yet the blockups would occur, and the matrices lay along and on top of the partitions. I appreciate the fact that this would be a difficult matter to handle by mail, but you must have had something like this before, for I know these troubles have been great on producing gray hair." Who can suggest the remedy?

World's Champion Operator.— Charles A. Nichols, a Linotype operator employed by the Salt Lake *Herald*, one of Utah's three dailies, broke all world's records for type-



CHARLES A. NICHOLS,
Who Broke the World's Record on the Linotype.

setting, Sunday, July 1. Mr. Nichols set 106,300 ems nonpareil in exactly seven hours and fifty-two minutes. This feat was accomplished during regular working hours and the matter set was printed in the *Herald*. The former record was 96,000 ems nonpareil set by G. A. Green, of the Boston *Advertiser*, during a contest in Chicago in 1896. This record held good until Mr. Nichols beat it by 10,300 ems. Mr. Nichols corrected his own proofs, which were remarkably free from typographical errors considering the terrific speed maintained during the race against time. A large per cent of the errors made were due to frequent shortages occurring in letters on account of the machine's inability to replenish the channels as fast as they were drawn upon. In several instances the letters "e" and "t" ran short, because the machine could not distribute as rapidly as the operator manipulated the keyboard. Mr. Nichols had set 52,300 ems by 11 o'clock, at which time he stopped for supper. At 11:30 o'clock he resumed his work. Despite the fact that the machine used has been in constant use for thirteen years, but twenty minutes were consumed in making necessary repairs. Fully ten minutes were used in putting a new cam in the keyboard. A broken keyboard belt caused another delay. Burt White, the *Herald's* machinist, made all repairs. During the eight hours of actual typesetting (the time consumed in repairs was deducted and the lost time added to the shift) an average of 13,287 ems was set per hour. The machine was speeded to nine revolutions per minute and at times a higher speed than this was reached. The copy furnished was typewritten Sunday matter in the main, although some ordinary reprint was set. The matter when measured totaled 340 inches. Over 190 pounds of metal were used and over 4,088 lines were set. Mr. Nichols has made excellent records in the past. On June 15 in seven hours and forty minutes he set 83,000 ems "off the hook." He then announced his intention of going after the world's record. Sunday night was selected for the trial. Witnesses were on hand to watch Mr. Nichols. When the eight hours' work was finished the matter was measured by William Igleheart, manager of the *Herald*, and others. Mr. Nichols worked steadily and with little apparent effort during the entire eight hours. A peculiarity in his touch is his inability to use the index finger of his right hand. This finger remains unbended while to the others is left his manipulation of the keyboard. Mr. Nichols set his first line of type on the Salt Lake *Herald* fourteen years ago. Aside from a few years in Denver, Mr. Nichols has spent the intervening time in Salt Lake. While working on the Denver *News* in 1896 he set 84,500 ems nonpareil in eight hours. This feat won him first place in a contest held by members of the *News'* force. The next highest man fell 14,300 ems below Mr. Nichols. During a week of seven days' work on the *Herald* recently he set 474,000 ems. Mr. Nichols left his machine looking and feeling little the worse for his eight hours of world-beating, nerve-wrecking typesetting feat. He now claims the championship of the world and is ready to defend the title against all comers.

Troubles of Operators.—W. J. C., Allegheny, Pennsylvania, writes: "Am a constant reader of your department in The Inland Printer, and have your book 'Correct Keyboard Fingering,' but would like further information through the Machine Composition columns. I can get up a good string now with spaced typewritten or legible manuscript copy (newspaper work), but fall down on agate reprint, market reports and the like with figures, and fractions, and tissue 'flimsy' (which is *very pale* typewriter on yellow tissue paper, scratched, scored and interlined with pencil till it looks like a Chinese railroad map). These three kinds form the bulk of the copy in this office, and any pointers for handling each of them to the best advantage will be highly appreciated. Your book says: "Speed * * * may be acquired by any student * * * but the *proofreader* must be reckoned

with." What causes a dirty proof, assuming the machine is right and operator a conscientious, intelligent printer? For instance, transpositions, double-letter troubles and striking wrong keys or neighboring ones, even when looking at keyboard, thus causing stops to make corrections, or else a dirty proof. The latter gives the most trouble and is hardest to overcome. Is this due to 'inborn fidgets' or nervousness, or is it natural to beginners and can be remedied, and if so, how? The machinists bitterly discourage an operator from knowing anything about the machine, and will tell nothing, but I would like to know: (1) Why the line delivery carriage is so hard to release by sending up assembler elevator on No. 3 machines. (2) Is the little spring projecting through hole back of starwheel of any real use? On some machines it is worn entirely away. (3) On one machine the matrices bounce out of assembler (both agate and nonpareil matrices), the first one in a line invariably doing so, and others more or less frequently. Starwheels have been changed and assembler chute spring adjusted to every position without improvement, and machinist says it 'can't be fixed' like the other machines. What else might cause this? (4) Most all springs here are adjusted like enclosed diagram. Is this good practice, as it does not agree with what I have read in this column?" *Answer.*— It has been many times repeated in these columns that legible copy is essential to the attainment of the best results, and foremen or proprietors who furnish undecipherable manuscript to their machines are doing themselves, as well as their operators, an injustice. The cost of having bad manuscript rewritten on the typewriter will be many times returned when the cost of composition is computed. With reprint, the copy should always be cut into short lengths and pasted on sheets not over six inches in length by nine inches in width, for convenience in handling on the machine copyholder. All manifold "flimsy" should be backed up with white paper and pasted thereon, and cut to the size given above. So much for the copy. In regard to operating, some of the troubles you cite are no doubt due to the condition of the machine. Double letters are almost always traceable to rusty keyboard keybars; transpositions to the chute spring being bent out of proper position, while striking wrong keys is often due to an attempt on the part of the operator to make his fingers perform faster than his brain directs, and anxiety to attain speed before the location of the keys is well learned. No better practice can be had than the repetition of certain words or phrases hundreds of times — at first slowly and with the minimum of movement of the hands, gaining in speed as the location of the keys becomes familiar. Such practice accustoms the fingers to seek the keys automatically. Bear in mind, *repetition;* not a new word each time, but the same one over and over again. This gives another advantage: the mind directs the fingers instead of the eye, which soon is trained to follow the copy steadily without more than an occasional glance at the keyboard. To assist in this, never read more than a word or two ahead of the word being composed; follow the work of the eyes with the work of the hands, and avoid memorizing a line or sentence and then composing it — print the word as soon as you read it. The latter part of your letter is all too true — machinists are prone to keep their knowledge to themselves, and in many cases they can ill afford to spare it. In answering your questions: (1) If the starting pin is adjusted properly by the screw beneath the assembler on which the pin rests, the line delivery carriage should be released just as the hook on the assembler catches. (2) The purpose of the matrix catch-spring is to prevent matrices in assembling from tipping back to the right. If the chute-spring is not properly adjusted it is better that the matrix catch-spring be out of the way entirely. Questions 3 and 4 reveal the principal cause of all your troubles — misadjustment of the chute-spring. The sketch sent shows the points of the spring bent straight downward, no curve in the spring just above the starwheel, and quite likely too much space between the spring and the assembler rails. In the book, "The Mechanism of the Linotype," the exact manner in which this spring should be bent is shown. The points should be bent at right angles to the spring and inclined slightly above the horizontal; there should be a curve just above the starwheel so as to tend to throw the bottom of matrices toward the starwheel; and a space of the thickness of the cap. W between the spring and the assembler rails. The worst cases of transpositions have been cured by making the adjustments of the chute-spring as given here.

RECENT PATENTS ON TYPESETTING MACHINERY.

Double-magazine Linotype.— Mary A. Benjamin, Fredonia, New York, administratrix of Augustus J. Benjamin, deceased. Filed December 30, 1905. Issued May 15, 1906. No. 820,546.

Line-delivery Carriage Finger.— E. S. Day & H. B. Hubbard, Bellingham, Washington. Filed April 24, 1905. Issued May 22, 1906. No. 821,342.

Justifying Space.— D. B. Ray, New York city. Filed September 8, 1903. Renewed November 28, 1905. Issued May 29, 1906. No. 821,885.

Assembler Lift.— C. T. Libby, Portland, Maine. Filed March 12, 1904. Issued June 5, 1906. No. 822,286.

Typograph Casting Apparatus.— J. B. Allen, Detroit, Michigan. Filed August 18, 1903. Issued June 19, 1906. No. 823,660.

GREELEY'S RETORT.

An acquaintance met Horace Greeley one day and said: "Mr. Greeley, I've stopped your paper." "Have you?" said the editor; "well, that's too bad," and he went his way.

The next morning Mr. Greeley met his subscriber again, and said: "I thought you had stopped the *Tribune.*"

"So I did."

"Then there must be some mistake," said Mr. Greeley, "for I just came from the office and the presses were running, the clerks were as busy as ever, the compositors were hard at work, and the business was going on the same as yesterday and the day before."

"O!" ejaculated the subscriber, "I didn't mean that I had stopped the paper; I stopped only my copy of it, because I didn't like your editorials."

"Pshaw!" retorted Mr. Greeley, "It wasn't worth taking up my time to tell me such a trifle as that. My dear sir, if you expect to control the utterance of the *Tribune* by the purchase of one copy a day, or if you think to find any newspaper or magazine worth reading that will never express convictions at right angles with your own, you are doomed to disappointment."—*Master Printer.*

HARMONIOUS BINDINGS.

"We are not yet ready to put your book on the market," said the publisher to the ambitious author.

"But it is printed, illustrations and all," argued the author. "Why don't you go ahead and bind it, and——"

"There's the trouble. The fashion experts have not yet decided what is to be the popular shade this fall, and we certainly do not want to risk binding the book in a color that will clash with the gown of the lady who is reading it, do we?"—*Judge.*

BUSINESS OFFICE

BY EDEN B. STUART.

Under this head will be discussed ideas from all classes of printers, rich or poor, large or small, prominent or obscure, so long as their ideas are of practical value and along this particular line of work. Do not hesitate to consult this department on any problem of estimating that may arise. Printers are urged to forward particulars of any work that will prove of interest and assistance to the trade and to the sender. Address all communications to The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

HINTS FOR YOUNG PRINTERS UNDER EIGHTY.— By W. A. Willard. A discussion of the cost of printing. 50 pages, paper, 50 cents.

FUNDAMENTAL PRINCIPLES OF ASCERTAINING COST OF MANUFACTURING.— By J. Cliff Dando. The scope of this book is indicated by the title. $10.

CAMPSIE'S VEST-POCKET ESTIMATE BLANK-BOOK.—By John W. Campsie. By its use there is no chance of omitting any item which will enter into the cost of ordinary printing. 50 cents.

EMPLOYING PRINTER'S PRICE-LIST.— By David Ramaley. New edition, based on nine-hour day. An excellent book to use as a basis for correct prices to charge on any kind of printing, $1.

CHALLEN'S LABOR-SAVING RECORDS.— Advertising, Subscription, Job Printer's. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

ORDER BOOK AND RECORD OF COST.— By H. G. Bishop. Contains 100 leaves, 10 by 16, printed and ruled, and provides room for entering 3,000 jobs. Half-bound, $3. Must be sent by express at expense of purchaser.

PRINTERS' INSURANCE PROTECTIVE INVENTORY SYSTEM.— By Charles S. Brown. A blank-book 11½ by 15 inches, with printed headings, superfine paper, special ruling. No. 1, loose-leaf, for large job or newspaper offices, $25; No. 2, for newspaper offices only, $15; No. 3, for job offices only, $15; No. 4, for small job and newspaper offices, $10.

NICHOL'S PERFECT ORDER AND RECORD BOOK is one of the most useful record books for printers running offices of moderate size that has ever been published. It serves both as an order book and a journal, no journalizing being necessary, making a short method of bookkeeping. Size, 9 by 12 inches; capacity, 3,000 orders; $3. Must be sent by express at expense of purchaser.

STARTING A PRINTING-OFFICE.— By R. C. Mallette. Contents: the Printer as a Business Man, Selection and Location of Plant, The Business Office, The Composing-room, The Pressroom, Light, Power and Heat, The Stockroom, The Book of Samples, Entering the Order, The Job in Process, Determining Cost, Bookkeeping, Preparing and Giving Estimates, Collections and Payments, Advertising and Office Stationery, Employer and Employees, Small Economies and Time-savers. 88 pages, cloth, $1.50.

PRINTER'S ACCOUNT BOOK.—A simple, accurate and inexpensive method of job accounting that is in use by hundreds of prosperous printers. It shows cost of each job, what should be charged for it, what profit *should be* made on it, what profit *is* made. Flat-opening, 10½ by 14½ inches, substantially bound, with leather back and corners; 400 pages, 2,000 jobs, $5; 200 pages, 1,000 jobs, $3.50. Specimen page and descriptive circular on application. Must be sent by express at expense of purchaser.

A MONEY-MAKING SYSTEM FOR THE EMPLOYING PRINTER.— By Eden B. Stuart. Contains chapters on: The Value of System, The Job Envelope, Individual Composing-room Ticket, Stock-cutting Order, Pressroom Job Ticket, Individual Press Report, Bindery Time Job Ticket, Bindery Job Report, Office Job Ticket, Individual Bindery Ticket, Pressroom Job Record, Presswork Record, Job Cost Record, Order Blanks, Enclosure Slip Estimate Memorandum, Pay Ticket, Daily Financial Report, Requisition Sheet, Bookkeeping, Perpetual Stock Balance Sheet, Profit and Loss Statement, Summary of Uncompleted Work, Stock Used Check, etc. Cloth, $1.

HOW TO MAKE MONEY IN THE PRINTING BUSINESS.— By Paul Nathan. Contents: The Printer as a Business Man, Starting an Office, What Class of Customers to Seek, How to Develop Business, Writing Advertising Matter, Taking Orders, Advertising, How to Talk to Customers, Cost of Producing Printing, Estimating, Acquiring Money, Pricecutting, Competitors, Profit and How It Should Be Figured, Buying, Doing Good Printing, Composing-room, Pressroom, Business Office, Bookkeeping, Management of Employees, The Employee's Opportunity, Danger in Side Ventures, Systematic Saving, Partnerships, Leakages, Keeping Up with the Times, Suggestions from Others. 375 pages, cloth, $3.

COST OF PRINTING.— By F. W. Baltes. Contents: Forms — Job Tag, Job Book, Bindery Tag, Compositor's Daily Time Tag, Total Time on Job in Pressroom, Total Daily Time in Pressroom, Daily Register of Counters, Foreman's Daily Press Record, Form Tag, Time Book, Day Book, Journal and Cash Book, Job Ledger; Tables —Weekly Summary of Labor, Monthly Register of Counting Machines, Monthly Summary of Press Records, Statement of Wages and Expenses, Cost of Time in Composing-room, Cost of Piecework, Cost of Work on Cylinder Presses, Cost of Work on Job Presses; Measuring Dupes, Paid Jobs, Legal Blanks, Monthly Statement of Loss or Gain, Inventory Books, Notes. Samples and Prices. 74 pages, cloth, $1.50.

ACTUAL COST IN PRINTING.— By Isaac H. Blanchard. Contains full description of the purpose and use of all the blanks and records, together with complete cost-figuring tables in blank for the purchaser's own use; in the rear of the book are the necessary ruled pages for taking off the annual or semi-annual inventory of the plant; a complete set of the loose blanks described in the book; one full bound copy of the summary record book for all the departments, sufficient for one year's use in the office, $5. Style 2.—Annual Tables for Printers and Binders. Every practical printer insists on revising his cost figures each year, and for that purpose the cost-figuring tables, together with the blank sheet for use in annual inventory, have been bound together in convenient book form. $2.

A DIRECTORY ESTIMATE.

William O. Protsman, Vevay, Indiana, writes: "I am sending you under separate cover a copy of the directory of the Ohio River Telephone Company, and would like to have an estimate of what it is worth to duplicate this book so far as size, number of pages, and stock and all the things that enter into its cost are concerned. There are to be five hundred copies, eighty pages and cover, size 6 by 9. Amount of composition as shown."

Answer.— S. & S. C. book, Caxton cover, all black ink, run in eight-page forms, side wire stitch and glued cover; labor, ten-hour day, $15 per week. Pressman doing own feeding. Pink insert, two pages.

Stock, 3 reams, 25 by 38 — 50, at 4 cents per pound	$ 6.00
75 sheets, 19 by 24 — 20 flat, at 6 cents per pound	.18
Cover, 1½ reams, 20½ by 25 — 65, at 12 cents per pound	10.48
Ten per cent loss on paper stock	1.65
Ink, 2 pounds at 40 cents	.80
Composition (type form, 26 by 45 ems pica) 53,800 ems eight-point, 75 hours at 25 cents	18.75
58,000 ems ten-point, 83 hours	20.75
Make-up, 80 pages, 15 hours	3.75
Lock-up, ten 8-page forms, 5 hours	1.25
One 2-page form, ½ hour	.13
One 4-page form, cover, 1 hour	.25
Presswork — make-ready, ten 8-page forms, 30 hours	7.50
One 2-page form, 1 hour	.25
Cover, one 4-page form, 3 hours	.75
Feeding 6,000 impressions, 8 hours	2.00
One thousand staples	.25
Hand folding, 10,000 folds, 15 hours at 10 cents	1.50
Gathering, 5,500 pieces, 5 hours	.50
Folding covers, 1,000 folds, 2 hours	.20
Stapling, 5 hours	.50
Trimming, 1 hour	.25
One hundred per cent general expenses on productive labor	58.33
Twenty-five per cent profit	34.00
Total	$170.02

As a usual thing the small printer does not receive enough for directory work and it is a good plan to figure higher on it where possible than on most such work, for it is not straight composition. If I have allowed too much for cost of labor, it is not difficult to make changes where necessary.

PRODUCTIVE AND NON-PRODUCTIVE LABOR.

B. Frank Brown, Peoria, Illinois, writes: "On page 423, June issue, you figure make-ready three hours, $1.89. This, I understand, covers time of both pressman and feeder. On feeding, fifteen hours, $2.78; this, according to your scale, pays for the feeder's time only. Is that as it should be? Here we figure pressman handles two presses, a feeder for each; on that basis I can not figure how one would get out cost by adding one hundred per cent to $2.78."

Answer.— The entire time of a feeder should be figured as productive, or enough of it to be sure that his time is all accounted for; that of the pressman only partially so. That part of a feeder's or pressman's time that must be allowed as non-productive should be provided for through the general expenses. This is obtained from actual records or by estimate, as you prepare yourself for doing so.

Some consider a pressman's time all non-productive and charge it all to general expense; others, time he is making ready, or possibly feeding, is charged as productive. Any workman who is considered productive should charge his entire time to such job or jobs as he may have in hand; therefore all that time is accounted for, as he is or should be busy at all times at some work that is productive and charged directly to some particular job. If his time is not always productive, it must be accounted for the same as

productive time and charged to some particular job, or the time so spent will be absolutely lost. All labor whose time is supposed to be productive, and so considered, must turn in all their time on some job or set of jobs as *productive work*, or that time will surely be lost. If some of the time your productive help put in is always unproductive, it should be so considered in your schedule of general expenses.

If you ascertain from record or estimate that a given amount of a pressman's time for a given period is unproductive and that period is long enough to show a fair run your own schedule. I use one hundred per cent because that amount will cover in most cases and in others it will be large or small. That amount is used for convenience and what I consider a fair average. It is small if anything.

GIVE FULL PARTICULARS.

Printers asking for estimates on work will confer a favor upon themselves, the trade at large, and the editor, if in connection with specifications sent in would be included salaries paid in the different departments in which the job in question is to be handled, number of hours



Photo by E. M. Keating.

SKINNING A COYOTE.

of his time, the chances are that it will never change and that one period will agree with another of the same length, year in and year out. On this basis, it is always safe and proper to make your general expense schedule.

Therefore, while you may have in hand a certain job that is short runs and long make-readys, thereby requiring a large proportion of a pressman's time that is accounted for as productive, there will be runs that go to the other extreme and all will be running and little make-ready, but in either case the feeder's time is accounted as productive and the pressman's unproductive time is provided for in the general expenses.

Of course, if you do not provide enough time for the unproductive time of your men it is nobody's fault but your own. If one hundred per cent is not enough it is not necessary that you take any one's word for it; arrange per day put in by such people, general information as to machines used, whether type is set by hand or machinery, price of stock used or to be used, and all information that will aid in making intelligent estimates. Such information will result in more satisfactory calculations and will save much time in looking up the same from records and data, which may be far from correct.

RECEIPTS AND COOK BOOK.

W. E. Brown, Sedalia, Missouri, writes: "I would like your estimate on the following: Wages in composition room are for Linotype operators, $18; handwork, $14; pressman, $15; feeder, $7.50; bindery foreman, $15; ruler and forwarder, $13; boy, $6, and girls from $3.50 to $5 per week of forty-eight hours. Job No. 1: Four thousand five hundred receipts in duplicate, perforated, num-

bered and bound one-half cloth sides, nine lines of gold lettering on back, bound in fifteen books; paper, twenty-pound double cap bond. Job No. 2: Three thousand three hundred receipts in duplicate, perforated, numbered and bound in eleven books, with spring back, no hubs, No. 20 cloth boards on sides, eight lines gold lettering on back, paper sixteen-pound double cap bond. Job No. 3: Cook book, five hundred copies, 24 by 36 — 50 M. F. book at 5 cents pound; about two hundred pages, seventy-five of which will be advertising and also on three pages of cover; estimates to be on two kinds of binding, Royal Melton cover glued on side wire-stitched body and in half cloth on stiff board sides trimmed flush, the latter to be a sewed book. The first two jobs to be ruled two ways and printed. Ruling done on old-style hand machine."

Answer.— No. 1:

Stock, 10 cents pound	$ 9.00
Ink	.50
Composition, 5 hours at 29 1-6 cents	1.46
Lock-up, 1 hour	.30
Make-ready (including registering) 3 hours at 46⅞ cents (pressman and feeder)	1.70
Feeding on press, 4,500 impressions, 5 hours at 15⅝ cents	.79
Hand numbering, 8 hours	1.00
One hundred per cent general expenses	5.25
Binding complete, including lettering, 70 cents per book	10.50
Ruling, two times through machine, 4,500 sheets, including ink and setting pins	2.60
Twenty-five per cent profit on all	8.28
Perforating, done outside	2.25
Total	$ 43.63

No. 2:

Stock (same as No. 1)	$ 2.70
Ink	.25
Same form as No. 1, only half used	
Lock-up	.15
Make-ready, 1½ hours	.85
Feeding on press, 4 hours	.62
Numbering, 6 hours at 12½ cents	.75
One hundred per cent general expenses	2.37
Binding complete, $1.45 per book	15.95
Ruling, two times through, 3,300 sheets	2.35
Twenty-five per cent profit on all	6.50
Perforating	2.00
Total	$ 34.49

No. 3.— 192 pages 5½ by 8½, 68 pages advertising; type page, 25 by 42 ems pica:

Stock, 6 reams, 300 pounds	$ 15.00
Cover, 20 by 25 — 75 ¼ ream	1.75
Ink, three pounds at 40 cents	1.20
Composition, 317,000 ems eight-point, 10 days (machine)	30.00
71,000 ems twelve-point, 10 days (hand)	30.00
Make-up, 196 pages, fifteen hours at 29 1-6 cents	4.38
Lock-up, twelve 16-page forms, ten hours at 29 1-6 cts.	2.92
Lock-up, one 4-page form, one-half hour at 29 1-6 cts.	.15
Make-ready, twelve 16-page forms, thirty-five hours at 46⅞ cents	16.14
Feeding, 6,500 impressions, seven hours at 15⅝ cents.	1.09
Hand folding, 18,000 folds, twenty hours at 10½ cents	2.10
Gathering, 6,000 pieces, five hours	.55
Folding covers, one hour	.11
Stitching, four hours	.42
Gluing covers, four hours	.42
Trimming, one-half hour	.20
Wrapping	.20
One hundred per cent general expenses	88.68
Twenty-five per cent profit	48.83
Total	$244.14

If bound in board covers and cloth backs and sewed and trimmed flush, deduct from above estimate stitching and gluing covers, with the general expenses and profit on same, and add to result about 3½ cents per copy.

A SCHOOL CATALOGUE.

W. M. Featherly, Harriman, Tennessee, writes: "I send you, under separate cover, copy of school catalogue which was printed in this office last year and which I did not secure this year because a large establishment at Chattanooga underbid me $84 on my last year's price. I received last year $259.50 and the job went this year for $175. It was for two thousand copies; stock cost $90 outside of freight, ink and staples. Freight was 65 cents per one hundred pounds and the weight was about five hundred pounds. The book contained forty-four pages of body matter set in eight-point type and eight enameled inserts. The book throughout is deckle-edged, 12 by 36, except the inserts, and run on Colt's Armory half-medium. You will note that to get the extension of the cover it was necessary to cut the sheets after printing into single pages, trimming out the center gutters slightly, and compile the single sheets before stapling. The type was set on a Simplex machine. Foreman's wages, $15; job-printer, $12, and pressman $12, who did his own feeding; wages of girls operating Simplex, $9 per week. I hold there is a loss in doing the work at the price of $175, although a large job-office in Chattanooga and Nashville made the same price. The bid for the third thousand was $62, while my price was $95. You will see the wide discrepancy in quotations."

Answer.— I may not have the right idea as to the matter of this job, but I let my estimate follow herewith, which you may use to whatever advantage it may be to you. There may be some question as to running the book as you suggest and cutting the sheets and gathering each two pages separately. While you did do so, it would not be necessary to pad the signatures before stapling. However, look over the following:

	2,000.	1,000 ADDITIONAL.
Stock	$ 90.00	$45.00
Freight	3.25	1.63
Staples	1.00	.50
Ink, three pounds	1.20	.60
Composition, 77,000 ems eight-point, four days at $3	12.00	....
Make-up, forty-six pages, eight hours at 22⅔ cents	1.78	....
Lock-up, eleven 4-page forms, ten hours at 27 7-9 cents	2.78	....
Cover, one-half hour	.14	....
Make-ready, six hours, at 22 2-9 cents	1.34	....
Presswork on inserts (tips) two forms..		
Make-ready	1.70	....
Feeding	1.32	....
Feeding, 24,000 impressions, thirty hours at 22 2-9 cents	6.67	3.34
Gathering, 58,000 pieces, thirty hours at 22 2-9 cents	6.67	3.34
Stapling, five hours	1.16	.58
Covering, one day	2.00	1.00
Wrapping, delivering	.50	.25
One hundred per cent general expenses..	38.06	8.51
Twenty-five per cent profit	42.90	16.19
Total	$214.47	$90.94

Of course, you understand that those who made prices against you were no doubt in much better shape to handle this job at a smaller price than you are and make as much or more money, perhaps.

PERCENTAGES NOT ARBITRARY.

A. B. C., Hamilton, Ohio, writes: "In reading your department we are led to believe that your writer expects the expense item in cost to cover certain items that might not be included when figuring on cost, and on the other hand we are under the impression that your cost man expects the twenty-five per cent profit to cover office and perhaps such expense as that of traveling men, etc. Now in

figuring from your basis in our business we find that twenty-five per cent would not be high enough for us. It seems that it will come out all right on certain jobs. We employ a small number of men in our working department in comparison to the amount of business we turn out, having perhaps from fifteen to twenty men employed in our printing department. We have on the average from four to six traveling men, and considering this as office help and with the small number of men in our printing department, and with only this number of employees our office force is comprised of four people, so you see the office expenses will figure much higher proportionately against the cost of production when taken in connection with traveling expenses. Now would you expect this twenty-five per cent profit to include the agents' salaries and expenses and also our office expenses? Or would you expect the office expenses and also agents' expenses to be a part of the general expense and against the productive labor?"

Answer.— It is of the utmost importance that every reader understand most thoroughly that the twenty-five per cent profit figured on estimates in this department covers nothing whatsoever but *profit*, and that only. It covers no item of expense of any kind or description. It is supposed to be absolute profit. The item of "one hundred per cent general expenses" used, also, is supposed to cover all *unproductive* expenses and cover them completely. Now it may be that no two plants are made up of the same items of cost, so far as the unproductive expenses are concerned. It is up to the managers to determine the unproductive cost items and dispose of them in the proper way. If some plants have traveling men and their usual expenses and these costs are of such a character as to be unproductive, this must be included in the general expense item. All office help and unproductive labor throughout the plant must also be included, as is the direct and overhead expense, such as rent, power, insurance, taxes, depreciation, interest, etc., and the total applied to the productive labor on every job handled in proportion to that productive labor. Then again, the items of "one hundred per cent" and "twenty-five per cent," as used on estimates in this department, are used arbitrarily and for convenience only. Readers should not assume that those amounts can be taken bodily and used in estimates on work produced in your respective plants. You may find it a losing proposition or one that will put so high a price on your product that you can not compete with others. The latter condition is doubtful, however. But each and every man should take pains to investigate for himself and know that when he puts a percentage at the foot of his estimates to cover general expenses, it covers them. Then whatever he adds for profit *will be profit*. In the case of salaries and expenses of traveling in the printing business, I would consider them a part of the general expenses unless some special trip and other extraordinary expense were incurred for some particular job, in which instance it could be charged to that job.



Photo by E. M. Keating.

STEAMBOAT SPRINGS, COLORADO.

TEN THOUSAND BLOTTERS.

R. Lee Sharpe, Carrollton, Georgia, writes: "I would like an estimate on ten thousand blotters, on 120-pound enameled stock, two colors. Ink cost $1 and stock $12.50. I made price of $3.60 per thousand on the order. Was the price right?"

Answer.— I estimate this job about as follows:

Stock	$ 12.50
Ink	1.00
Composition, two hours at 33⅓ cents	.67
Lock-up and separating forms for the color, one hour.	.34
Make-ready, two hours	.68
Feeding, twenty-five hours at 18½ cents	4.63
Wrapping	.25
One hundred per cent general expense	6.57
Twenty-five per cent profit on all	6.66
Total	$ 33.30

I may not be correct on the rate of cost of the labor, or how you estimate it. I may be wrong also on the rate of your general expense item. This will show you the method, however, and you can easily make necessary changes.

SYSTEM NEEDED HERE.

A. E. Ruffner, Ballard, Washington, writes: "I would like you to give me an estimate on the following job: Booklet, twenty-four pages and cover, 3½ by 5½, trimmed,



STARTING OUT AFTER BIG GAME.
Photo by E. M. Keating.

saddle wire-stitched, three thousand copies. I figured the job as follows: Stock for inside, two and one-quarter reams M. F. book, fifty-pound, at 6 cents pound, $4.20; stock for cover, 215 sheets one hundred-pound Golden Rod enameled book, at 10 cents pound, $4.50; nine thousand presswork on pony, eight-page forms, $9; folding and stapling, $6; furnishing four electros, $2.28; composition, $2.50; presswork on cover, $2; ink, 50 cents; profit, $9.02, a total of $40. Our competitor has an 8 by 12 jobber, and his price was $23. The merchant thinks we were too high and we would be glad to have you give us an estimate on the job, which will be greatly appreciated."

Answer.— I would suggest the following:

Stock, 24 by 36 — 50, four and one-half reams, 225 pounds at 4 cents	$ 9.00
Cover, 28 by 42 — 100, colored, one hundred sheets, twenty pounds at 7 cents	1.40
Ink	.50
Four electros	1.75
Composition, setting twelve pages, including cover (4), four pages of display, four of body, seven hours at 20 cents	1.40
Lock-up, four forms, two hours	.40
Make-ready, four forms, ten hours	2.00
Feeding, 12,000 impressions, fifteen hours	3.00
Folding, 21,000 folds, twenty hours	4.00
Gathering, 12,000 pieces, eight hours	1.60
Stapling (hand), ten hours	2.00
Trimming, five hours	1.00
Wrapping	.20
One hundred per cent general expenses on productive labor	15.60
Twenty-five per cent profit	10.96
Total	$ 54.81

You will note that by this estimate your $40 does not look well, and while it may let you out at about cost, it is not desirable to do business on that basis. Your method of set-scale pricing is not satisfactory to any shop unless you first go through the process of estimating on above basis and know for a certainty that you can sell presswork at "$9 for nine thousand impressions" at a profit and yet compete with your friends. A comparison of the above estimates will show you where they differ and where you have erred. Your competitor will undoubtedly lose as much as he gets for the job. He needs system.

SUFFICIENT RECOMMENDATION.

I desire to register a kick against THE INLAND PRINTER while writing. There is one objection I have against it, which is that you make it so essential to all printers who have any desire to advance in their work that I find it utterly impossible to get along without it. Have been a constant reader for the last six years, and well remember of one job I was trying to secure, when the person asked the man I was working for what kind of a workman I was. The reply was that I was a faithful student of THE INLAND PRINTER. The gentleman said that was recommendation enough for him any time and the position was secured with no further trouble.— *LeRoy Boggs, Mitchell, South Dakota.*

MR. E. W. BEEDLE.

ONE of the most widely known experts in railroad and printing-trade circles, Mr. E. W. Beedle, has reluctantly allowed his photograph to be reproduced in these pages for the gratification of his many friends. Mr. Beedle, for years the close friend of the late Henry O. Shepard, is vice-president of The Henry O. Shepard Company and also vice-president of The Inland Printer Company. Mr. Beedle made his first observations in life in Greenville, Ohio, in 1852, and received his education in the local schools of that town and at Antioch College. His experience as a railroad man began at the age of eighteen and he has filled important positions on most of the Western lines until of late years, when he associated with The Henry O. Shepard Company, with whose interests he has become closely identified. Mr. Beedle has a distinguished peculiarity of expressing thought, the vigor and pointedness of which has been at various times the subject of admiring comment.



Photo by the Matzene Co.

Plate engraved by Inland-Walton Engraving Co.

Yours truly
C. W. Beedle

LITHOGRAPHY

BY GEORGE K. HENDERSON.

Under this department heading, Mr. George K. Henderson, instructor in lithography at Winona Technical Institute, will answer all queries pertaining to this subject.

Arrangements have also been made with him to assist workers in this line by making analyses and doing experimental work, at the following rates: Analysis of inks, compounds, acids and solutions, $2; recipes and working formulas, $1; examination of papers, inks and bronze powders, and making sample prints on or from same, $1; experimental work from any surface-printing medium, in one to ten colors, $1 per color. Address all matters pertaining to this department to George K. Henderson, Winona Technical Institute, Indianapolis, Indiana.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOLITHOGRAPHY.— George Fritz. $1.75.

GRAMMAR OF LITHOGRAPHY.— W. D. Richmond. $2.

LITHOGRAPHIC SPECIMENS.—Portfolios of specimens in the highest style of the art, published by Joseph Heim. Album Lithographique, part 24, $1.50. American Commercial Specimens, second and third series, $3.50 each. Modern Alphabets, $3.50.

HANDBOOK OF LITHOGRAPHY.— By David Cumming. A practical and up-to-date treatise, with illustrations and color-plates. Chapters on stones, inks, pigments, materials, transfers, drawing, printing, light and color, paper and machines; also chromo-lithography, zinc and aluminum plates, transposition of black to white, photo-stone and ink-stone methods, etc. Cloth, 243 pages. $2.10, postpaid.

HALF-TONES ON LITHOGRAPHIC STONE.— P. O., Milwaukee, Wisconsin, writes: "I am experimenting with half-tone on lithographic stones and have some difficulty in etching portions of the plate which are too strong in tone; the etching was done with gum and acid of about same strength as used in etching crayonwork. The result was irregular and spotty. Can a half-tone on stone be treated the same as a half-tone on copper, stopping out with asphalt the parts not requiring etching and giving the whole stone an acid bath? If asphalt is not the proper medium for the purpose, kindly advise what I might use instead." *Answer.* — For colorwork, a border of wax should be placed around the stone, and clean water flowed over the image. The portions which are too heavy can be reduced by rubbing with a piece of india-rubber, fastened in a regular crayon-holder. The rubber can be pointed like a pencil for reducing fine details; when finished, the stone requires an even etch all over. For a black plate, the high lights, and such work as requires finer manipulation, must be opened out with a needle point, in a similar manner to the fine hand-tooling which can be seen in our trade journal and magazine illustrations. Asphaltum can not be used in the manner you describe.

LITHOGRAPHIC INKS.— A. J. M., Boston, Massachusetts, writes: "I have had a color dry so hard that the other colors would not take, and again, I have seen a new can of ink used and it rubbed off the paper in three days; and you know I can not risk it to run the job in order to study an ink. I have added zinc and white lead to colors and vermilion to reds to make them opaque for colored papers, but I have to carry too much ink to cover the paper. (1) Is there some way to tell if a colored ink needs a dryer in it before trying it on the press? (2) How to tell if a color needs some grease so that it will not dry too hard? (3) Why and when is cornstarch used in inks? (4) What is Venetian turpentine used in inks for, and how much? (5) Is there some way to make colors opaque for use on colored cover-papers? (6) Can colors be made transparent without adding varnish or magnesia to them, which makes them pale? (7) What is the best dryer to use in a color when other colors are to print on top of it?" *Answer.*— (1) As all inks are at least one week old before reaching the press-room, an examination of its condition in the can will show whether skin has formed or not. If skin has formed the ink will dry in a reasonable time after printing, and if no skin has formed from the time the ink left the makers' hands, a sufficient quantity of dryer must be added to produce the desired effect. (2) Experience is the only teacher. Inks vary too much to lay down any positive rules; the amount of varnish, dryers and compound which can be added to any color of ink are matters of personal judgment, influenced by the quality of the work on stone, the grade of paper used, the speed of the press and the temperature of the workroom. (3) Cornstarch is used to prevent offsetting when running heavy solids on super or other hard-finished papers. It is also a good shortener for ink which has too much stiff varnish in its composition. (4) To prevent and remedy wearing of work on stone, and in transfer ink use just sufficient to do the work required. (5) By the addition of *dry flake* or *silver white*, most colors can be made opaque to light; but the inkmakers supply special inks for cover-printing purposes. (6) No, opaque colors can not be made transparent without adding a reducing agent, either of varnish or oil, which will also reduce the color strength. (7) This is a matter of personal opinion. A safe dryer to use for the above purpose is copal varnish. Siccatif dryer in both paste and powder form is also reliable as a dryer for colorwork.

EFFORTS APPRECIATED.

My first impulse was to answer your inquiry regarding my subscription by simply filling out the postal and dropping it in the mail. My second thought was that I was hardly doing my duty as an admirer of things well done in the printing business, in not assuring you how much I enjoy your publication. The influence you exert in your columns and the example of your typography and press-work is very far reaching indeed, and I can only hope that long life will characterize THE INLAND PRINTER.— F. *H. Miller, Hingham, Massachusetts.*

HUNGRY FOR IT.

I am a regular reader of your journal and think it the best of all periodicals issued for the benefit of the craft. I look forward to each issue as a hungry man does to his next meal.— *C. E. Hughes, Duluth, Minnesota.*



Imprint of the Bohemian Benedictine Press, Chicago, Ill.

NEWSPAPER WORK

BY O. F. BYXBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Byxbee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLEN'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

THE STONEMAN.—By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

STARTING A PRINTING-OFFICE.—By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, $1.50, postpaid.

GAINING A CIRCULATION.—A book of 60 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, 50 cents, postpaid.

ESTABLISHING A NEWSPAPER.—By O. F. Byxbee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, 50 cents.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, $3.50, prepaid.

PRACTICAL JOURNALISM.—By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, $1.37, postpaid.

AD.-SETTING CONTEST, NO. 20.— The contest announced last month, while it contains the essential features of the others which have been so successful, is entirely different in one respect — it allows the compositor every possible scope in not only arranging the copy but in selecting the matter which the ad. will contain. What the merchant wishes to advertise is told in a conversational manner, and with this as "copy" the contestant is to construct an ad. according to his own ideas of wording and display. This should prove a most interesting and instructive contest and it is expected that there will be a large number of contestants, particularly when it is considered that each compositor will receive a full set of the ads. submitted. It does not close until August 15, which gives ample time for those who missed the announcement last month to take part. The full rules and copy were published in the July number.

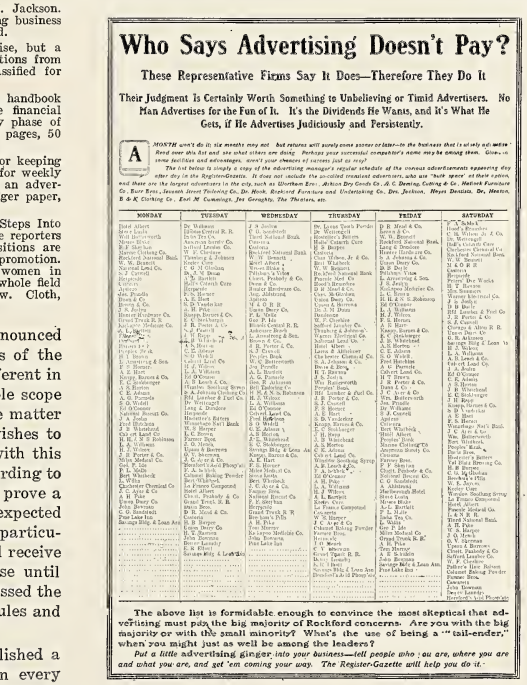
ON June 20 the Maysville (Ky.) *Bulletin* published a "Home-coming Number" that was appropriate in every line. The local board of trade had raised about $1,000 by popular subscriptions to be used in "rounding up" all former residents of the city and county, and the *Bulletin* published an edition that was a credit to itself and the city. It was well illustrated with familiar faces and scenes, and filled with descriptive and historical matter, not overlooking a full list of the names of the people who had returned to the home town for the occasion. This plan, while not a new one, is one which many papers would find it profitable to father.

MARK TWAIN tells of a man who was so well pleased with an advertisement in his local paper that he wrote the following testimonial letter to the editor:

MR. EDITOR — *Sir:* After selling all I could, giving barrels away, and stuffing my hogs till they would eat no more, I still had, last fall, about two hundred tons of big, juicy, fine-flavored apples left on my hands. I inserted in your valuable paper an ad. that I was willing to send free a barrel of picked fruit, freight paid in advance by me, to any one who would apply, there being, of course, no charge for the barrel. You will hardly credit it, but that little 40-cent ad. cleared out my whole stock of apples, and I could have disposed of five times the quantity on the same terms.

AN evidence of what can be accomplished by energetic work along legitimate lines, when the editorial and business departments are working as a unit, is shown in the progress of the Reading (Pa.) *Telegram*. In local advertising, May, 1906, gained 54,082 agate lines over May, 1905, or thirty-nine per cent; while the gain in circulation has been seventeen per cent. Since Editor L. S. Richard took charge of the *Telegram* new machinery has been installed and the paper materially improved in appearance and contents. At the same time the advertising department has been active under the management of A. A. King.

"WHO SAYS ADVERTISING DOESN'T PAY?" is the heading of a striking five-column announcement in the Rockford



Who Says Advertising Doesn't Pay?

These Representative Firms Say It Does—Therefore They Do It

Their Judgment Is Certainly Worth Something to Unbelieving or Timid Advertisers. No Man Advertises for the Fun of It. It's the Dividends He Wants, and It's What He Gets, if He Advertises Judiciously and Persistently.

A MONTH won't do it; six months may not. But returns will surely come sooner or later—to the business that is utterly advertising. Read over this list and see what others are doing. Perhaps your successful competitor's name may be among them. Give it some facilities and advantages, won't your chances of success just be so much?

The list below is simply a copy of the advertising manager's regular schedule of the various advertisements appearing day after day in the Register-Gazette. It does not include the occasional occasional advertisers, who are "here again" at their option, and there are the largest advertisers in the city, such as Wortham Bros., Ashton Dry Goods Co., A. C. Denning, Cutting & Co., Hallock Furniture Co., Sure Rest., Janssen Street Publishing Co., Dr. Hoyt, Rockford Furniture and Undertaking Co., Dev. Jackson, Meyer Dennison, Dr. Heaton, B & K Clothing Co., Earl M. Cummings, Jos Geraghty, The Theaters, etc.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Hotel Albert New Lamb Will Butterworth Rockford Shoe H. E. Hallock Manor Clothing Co. Rockford Journal Bank Dr. W. Bennett Nat. Bank Co. N. F. Carroll Hotpoint Apiary Albert Mrs. Proulx Hotel Co. Dr. Heaton F. A. Boyce Home Furniture Co. Rural Truck & S. Rockford Furniture Co. A. L. [illegible] [illegible] Harvey Co. Harvey Co. Harper Store Harper Store Harper Co. Harper Co. Harper Co.

(Ky.) *Bulletin*, and the fine edition of the *Larimer County Democrat* already described, I am in receipt of the "Souvenir Supplement" of the *Anderson News*, published at Lawrenceburg, Kentucky. This edition does not commemorate an anniversary or any other special event, but has evidently been prepared with a great deal of care and thought as to details. From the exceptionally large amount of matter which is apparently paid for, it must have been very profitable. In planning and arranging for an edition of this kind, the publisher should take time enough so that no detail which will add to its profitableness will be overlooked; every individual or firm who can be induced to advertise must be visited. It is better to leave the date of publication open until absolutely certain everything will be ready, as frequently, when the date of publication is fixed in advance, it is necessary to go to press leaving out much profitable advertising because the solicitor did not have time to make all necessary calls, or copy and cuts could not be obtained in time. The last advertisers secured are usually the ones which are all "velvet."

ONE of the finest special editions that ever came to my desk is that of the *Larimer County Democrat*, of Fort Collins, Colorado. There are seventy-six pages, 11 by 14, printed on heavy S. & S. C. book, containing over two hundred nicely printed half-tones. The title-page, from a clay-model design, is reproduced. The edition gives evidence of being an exceedingly profitable one.



NEWSPAPER CRITICISMS.— The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Corning (Cal.) *Observer*.—A very neat little paper.

Okee (Wis.) *Klondike*.— Abbott seems to be "the whole thing" in Okee, and his little paper is bright and well printed.

Plymouth (Wis.) *Reporter*.— The pages of your supplement should be the same size as those in the main section of your paper. It would be better to abandon the ready-print and put this extra matter on the inside pages of your regular paper and avoid the expense of a supplement. The general appearance of the paper would be much improved if all printed at home.

Archibald (Pa.) *Citizen*.— Your issue of May 26 shows commendable enterprise. The arrangement was good and the paper generally attractive.

Hancock County Herald, McComb, Ohio.— The make-up is good. It would be better if the large heads in the third and fifth columns were above the fold.

St. Petersburg (Fla.) *Independent*.— An excellent paper in every way. I would suggest larger heads for the first page — the articles deserve them and the appearance of the page would be greatly improved.

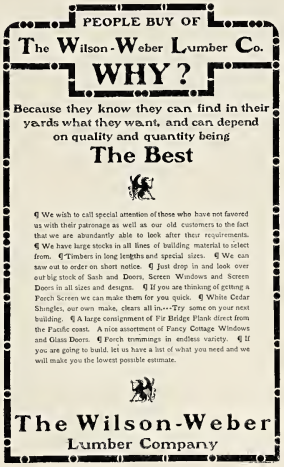
AD. COMPOSITION.— Since the result of THE INLAND PRINTER'S ad.-setting contest, No. 19, was announced, quite a number of compositors have sent in ads. set along the lines advocated, and the contest has proved more of an education than any other previously conducted. Vance R. Noe, who, by the way, sets many excellent ads. in the Estherville (Iowa) *Enterprise*, sends No. 1 as an example of an ad. set along the lines indicated. The length of the cut was unfortunate, as it made it necessary to crowd the display at the top almost too much. The display lines have all been given their proper relative value, and aside from the crowding mentioned above the ad. is well balanced. Another similar ad. was submitted by Harry T. Ross, of the Louisville (Ky.) *Herald*. Flint & Morgan, publishers of the *Dunn County News*, Menomonie, Wisconsin, send No. 2 as an example of an ad. with business-bringing qualities. The subject matter is good, but the upper portion of the ad., particularly the wording in the panel, is unnecessarily crowded. Several plain but creditable ads. were received from J. B. Miller, foreman of the El Dorado (Kan.) *Advocate*.


SEMI-ANNUAL
CLEARANCE SALE
OF MEN'S BOYS' AND CHILDREN'S SUITS
Beginning Wednesday, June 20, and Continuing Until July 4
An Actual Saving of from $2 to $6 on your Summer Suit—Our first semi-annual clearing sale last season was such a wonderful success that we have decided to adopt the same plan this season and clean up our seasonable suits before the season is over. The time for selling suits will be over by July 4, and we expect to clean up every spring and summer suit in our store by that time if price will be any inducement.
Men's Suits
$14
All our $15.00 and $16.00 suits at $11.25
All our $12.50 and $13.50 suits at $8.75
Cheaper Grades at Same Reductions
Boys' and Children's Suits
This Stock Must be Reduced
20 to 30 Per Cent Discount
Every Suit Guaranteed to Give Satisfaction
Beymer-Mendershot
ONE PRICE CASH CLOTHIERS

No. 1.

ROBERT H. COSGROVE, manager of the Spokane Interstate Fair, has adopted an unusual plan for securing support from the publishers of weekly newspapers in the vicinity, which has been received with great favor. This year, the usual advertising contracts with the newspapers have been made, and in addition $100 is to be given in special prizes to the papers giving the fair the most artistic and best arranged advertisements. The conditions of the

contest require each paper to publish each week for nine weeks at least two of the news items which will be sent out weekly by the press agent in a news bulletin. As an additional inducement, the fair agrees to give all the publicity possible to the papers winning. The purse is divided into



No. 2.

six prizes of $30, $25, $20, $15, $10 and $5. The fair is assured of about four times as much publicity this year as ever before, at an additional cost of only $100. This plan is working so well in Spokane that it will be tried elsewhere, but publishers before agreeing to give the fair the "big end" of the arrangement, should see that the prizes offered are worth while. To give a fair $1,000 worth of publicity for the mere expenditure of $100 is hardly an even divide.

THE LITTLE LAWYER MAN.

It was a little lawyer man
Who softly blushed as he began
Her poor, dead husband's will to scan.

He smiled while thinking of his fee,
Then said to her, so tenderly,
"You have a nice, fat legacy."

And when, next day, he lay in bed
With bandages upon his head,
He wondered what on earth he said.

— *The Green Bag.*

JOURNALISTS NOT WANTED.

The difference between newspaper men and journalists is one of the standing distinctions of the profession, says *Newspaperdom.* Several years ago there appeared in the columns of a newspaper an advertisement which read: "Wanted, a good newspaper man; one who knows the difference between a news item and a damage suit. No journalists need apply."

OF INESTIMABLE VALUE.

We have been readers of your most valuable paper for a number of years, and can truthfully say that the hints and suggestions found therein have been of inestimable value to us.— *The Kennebec Journal, Augusta, Maine.*

A FAMILY INTERESTED IN NEWSPAPER MAKING AND PRINTING.

BENJAMIN B. HERBERT, editor of the *National Printer-Journalist* and founder of the National Editorial Association, and his two sons are engaged in the printing and publishing business at 1319 West Ravenswood Park, Chicago.

Mr. Herbert's work for nearly twenty-five years has been along the lines of promoting better newspaper making and printing and more thorough, conscientious preparation for these callings. He served as president of the Minnesota Editorial Association for three terms, and his annual addresses were filled with this theme. In 1884 he recommended the forming of the National Editorial Association, to be made up of properly chosen delegates, its objects to be: the considering of the calling in its broader opportunities, obligations and influences, and to interchange views and experiences; to build up a professional newspaper literature and a professional spirit and feeling; to establish a college of journalism and typography and encourage journalistic training in existing universities; to coöperate in matters of foreign advertising; to guard against fraud and imposition and to ascertain and fix upon just advertising rates; to consider and establish principles and rules of newspaper ethics and editorial courtesy; to secure just and uniform libel laws throughout the different States that would protect both the publishers and the people; to establish, for the association, a journal of newspaper making and typography for the discussion of topics and the diffusion of knowledge and news items pertaining to the callings and as a medium of communication between the members and the officers, and, in a measure, to coöperate in the matter of employment and to secure and transmit confidential information as to fitness of applicants for services required.

The association was founded at New Orleans in 1885, and Mr. Herbert was elected the first president, and fully stated these several purposes he had in view in organizing the association in his annual address before the convention at Cincinnati in February, 1886.

Subsequently Mr. Herbert prepared and presented a course of reading and study in journalism and typography to cover four years, which was adopted by the association in 1896. The organization has been in existence for twenty-one years and has met in twenty different cities, in all the different sections of the United States, and nearly all the proposed objects have been carried out, in part by the National Editorial and in part by the American Newspaper Publishers' Association, except the establishing of a college of journalism under the fostering care of the association. This is being rendered unnecessary, as instruction in newspaper making and printing has been taken up by schools established for the purpose and by the State Universities of Missouri, Kansas, Nebraska, Pennsylvania, Wisconsin and other States. It is worthy of note that the course of study, outlined to occupy four years, recently announced by the Wisconsin University, covers substantially the same studies mapped out by Mr. Herbert and adopted by the N. E. A. convention of 1896.

Mr. Herbert has been an advocate of practical, industrial education all his life. He delivered an address in its advocacy before the State Teachers' Association of Minnesota in 1866 and he subsequently advocated the same views in his daily and weekly papers at Red Wing, Minnesota, and has continued this agitation in the *National Printer-Journalist,* and in public addresses, for the past eighteen years. He has seen the cause grow until industrial instruc-

tion has become general and until, among the rest, schools of typography are coming to be looked upon as absolutely necessary under existing conditions.

Mr. Herbert entered the newspaper business in 1873, and subsequently established the Red Wing Printing Company, publishing a daily newspaper, the *Red Wing Daily Republican*, founded by him in 1885, and a weekly edition, founded by Governor Hubbard, of Minnesota, in 1886, and conducting a complete job-printing office and bindery. He was aggressive and independent as a newspaper editor, and a believer in the promotion of industries. He organized and was secretary of the first Red Wing mills, and of the Red Wing Building Association, and was one of the organizers and first secretary of the Red Wing Furniture Factory, and the Red Wing Stoneware Company, large and flourishing industries that have added much to the wealth of the city that was, for thirty-four years, Mr. Herbert's home. He was a trustee and the first secretary of the State Public School of Minnesota, located at Owatonna, and in 1886 escaped by only one thousand two hundred votes, in a congressional district two hundred and fifty miles in length and including twelve counties, from being severed from his chosen life-work through an election to the United States Congress. In 1888 he established the *National Printer-Journalist* at Indianapolis and at the end of a year removed the publication to Chicago.

He has been a frequent speaker before press and printers' organizations, having delivered addresses before twenty-six State editorial associations, as well as before the National Editorial Association and the United Typothetæ of America. He has also lectured before the classes in journalism at the Nebraska and the Missouri State universities. His two sons, associated with him in business, have chosen largely the education afforded in the printing and publishing office rather than elsewhere.

W. E. Herbert attended the public schools and the Red Wing Seminary, and took a year's course at Bryant's Commercial College of Chicago. He afterward became a student in the Northwestern Dental College of Chicago, graduating with the degree of doctor of dental surgery and for a few years practiced his profession in Evanston, Illinois. Like most whose fingers have been touched with printer's ink, he returned to the calling. He married the daughter of Rev. William Henschen, Ph.D., editor of the official paper of the Swedish Methodist Episcopal Church of America. They have one daughter, Marion. He has charge of the mechanical department of the business, which he conducts efficiently and well.

Benjamin S. Herbert attended the public schools and the High School of Evanston, took a course in a Chicago Commercial College and afterward in the Detroit Correspondence School of Journalism. He is a Royal Arch Mason, a member of the Methodist Episcopal Church and active in Y. M. C. A. and Sunday-school work. He looks after the business and correspondence of the *National Printer-Journalist* and edits the Ravenswood *Citizen*.

The whole family take an active interest in the business of newspaper making and printing and generally attend the conventions of the National Editorial and Illinois Press Associations.



BENJAMIN B. HERBERT.



MRS. B. B. HERBERT.



W. E. HERBERT.



MRS. W. E. HERBERT.



BENJAMIN S. HERBERT.



MARION HERBERT.
(The little granddaughter.)

A FAMILY INTERESTED IN NEWSPAPER MAKING AND PRINTING.

THE world reserves its big prizes for Initiative. Initiative! It is doing the right thing without being told. But next to doing the thing without being told is to do it when you are told once. Then there are those who never do a thing until they are told twice; such get no honors and small pay. Next, there are those who do the right thing only when necessity kicks them from behind, and these get indifference instead of honors, and a pittance for pay.—*Elbert Hubbard.*



POINSETTIA

FROM NATURE
BY
THREE-COLOR PHOTOGRAPHY
ENGRAVED AND PRINTED BY
THE SMITH-BROOKS COMPANY
DENVER, COLORADO

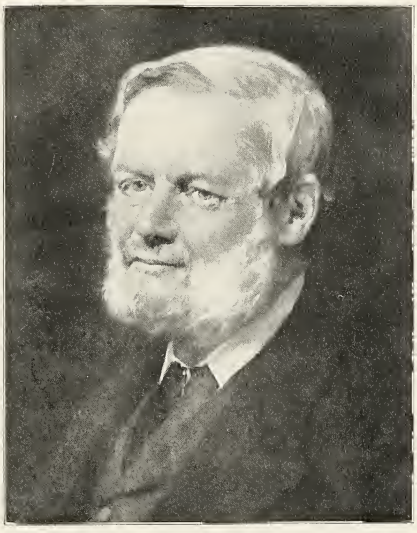
Book Review

Charles William Bowers, of Highland Springs, Virginia, newspaper man, poet, printer and all the rest of it, has burst into verse and print in a curious little volume entitled "Newspaper Waste Basket and Other Poems." It is a forty-eight-page booklet with eight pages of fly-leaves, which do not count, made from pieces of newspaper. The poems are bright and readable, and the binding unique enough to attract attention. It is in the form of a newspaper file, the leaves being retained between a pair of sticks tied at each end, and bears carefully placed thumb-prints of inky fingers. The author says he personally bought the paper, cut it, set the type, printed and bound the volume. He likewise pleads guilty to writing the verse, for which the modest sum of 50 cents is asked.

"A Desk-book of Errors in English." By Frank H. Vizetelly, F. S. A., associate editor of the Funk & Wagnalls Standard Dictionary; author of "The Preparation of Manuscripts for the Printer," etc. All that concerns the culture of language is of infinite importance. The care bestowed upon it is bestowed upon the most perfect instrument of the mind. As Doctor Johnson has said: "Life may be lengthened by care, though death can not ultimately be defeated; tongues like governments have a natural tendency to degeneration; we have long preserved our constitution, *let us make some struggles for our language.*" The English language is the common property of the English-speaking peoples, and it is they who give it its virility and expressiveness, yet their one besetting sin is carelessness in speech. There is a strong tendency to use colloquial inelegancies, slang, vulgarisms, and the vernacular of the street. It is the duty of every well-educated man to protect the langauge from this contamination; for if it is to flourish, it must have a standard by which that which is good English in the older forms shall serve as standards to the rejection of whatever is illiterate, incorrect, or vicious in the modern. The book has been written for the purpose of pointing out common errors and slovenly speech, in the hope that they will prove acceptable to and that they will be read with interest by all who desire to acquire refined diction, and to check the use of those vulgarisms which unfortunately spread only too rapidly from the street into the home. The book is arranged alphabetically so that its contents are convenient for immediate consultation. Its price is 75 cents. The Inland Printer Company.

A. C. McClurg & Co., Chicago, have shown appreciation of a popular demand by issuing two striking novels prepared in gift-book style. The first of these, "Nicanor, Teller of Tales," by C. Bryson Taylor, a story of Roman Britain, is illustrated and decorated by Troy and Margaret Wert Kinney. The end-papers, page borders, initial decorations, etc., are printed in a gray-green tint in great variety of strong and appropriate designs, and the text in the clear and attractive old-style antique. The stock is a soft textured imitation hand-made paper. The illustrations are by the three-color process, made more effective by being tipped on. The binding is a rough burnt-orange buckram stamped in white with a three-color panel picture of the hero. A discrepancy in register is noticeable on some of the pages. The second book, "For the Soul of Rafael," by Marah Ellis Ryan, is copiously illustrated from photographs taken expressly for the purpose by Harold A. Taylor, whose success in this unusual and difficult field is pronounced. The end-papers and page decorations are by Ralph Fletcher Seymour. The scene of the story is California in its earlier days, and the decorations and illustrations are done in the usual warm tones and sepias. The illustrations are tipped on the pages and are set off by a broad warm-tinted border. The binding is a smooth light-brown buckram stamped in red, black and white. Notwithstanding the special character of the mechanical preparation of these books, they are sold at the standard price, $1.50.

The Funk & Wagnalls Company announces that it has purchased the well-known periodical, *Public Opinion*, which on and after July 7 will be merged with *The Literary Digest*. *Public Opinion* was founded in 1886 — four years prior to the birth of *The Literary Digest* — and it has enjoyed a wide popularity. The various newspaper directories for the present year give its circulation at from forty-five to eighty thousand. It was originally published in Washington, D. C., but for the last eight or ten years it has been published in New York. *The Literary Digest*, though



THE LATE DR. RICHARD GARNETT, C.B., THE MOST LEARNED ENGLISH BOOKMAN.

a younger publication, has made rapid growth in its circulation, which, before the consolidation, exceeded one hundred and twenty-five thousand.

The second edition of "Alphabets Old and New," by Lewis F. Day, contains much that is of value to the student of the art of lettering. The book has been revised and enlarged for this edition. The history of lettering is treated in a most entertaining manner and the illustrations, which number more than two hundred and embrace forms of lettering from the fourth century to the present day, are exceptionally interesting. To one who wishes to approach the subject of lettering from the historical side and familiarize himself with the letters of the different periods, this book is of great value. It is published by B. T. Batsford,

London, and imported by Charles Scribner's Sons, New York. The price is $1.25 net. May be ordered through The Inland Printer Company.

"Our Neighborhood" is the title of an attractive magazine published by the employees of the New York National Exchange Bank, West Broadway and Chambers



street, New York city. The circulation is of course purely local. It is bright editorially and well and attractively printed. The cover-design is shown herewith.

"Chromo-lithography," published by William Knapp, Halle a/Salle, Germany. By Friedrich Hesse. The last numbers (8, 9 and 10) of this series have come to hand and they maintain the high order of excellence of the previous issues. No. 8 is a continuation of the previous part 7, special subheadings in which present the various details relating to bronzing, drying racks and cabinets. In this section a novel support for holding sheets in suspended fashion is illustrated; it is an automatic clamp that secures one or more sheets firmly, without any liability of damage, through the accidental rubbing of one sheet against the other. The special requirements of power presses; the care of the ink fountains and ink rollers; the damping rollers; the impression cylinder; the relative disposition of the matter on the stone with respect to its outside dimensions, so as to admit of the unobstructed operation of the grippers; the proper placing of the stones on the press and the special phases of the printing operations conclude this subdivision. The section which follows is given over to a treatise on specialty printing as found in lithography and specifically relating to decalcomanie and transfer printing; also touching in detail the preparation of transfer prints for ceramic or china decoration, as well as the specific preparation of the transfer paper, etc. This number commences a section which relates to the preparation and execution of transparent printing in its various forms. Two inserts are given, one of an original pen-and-ink litho, by Otto Greiner, printed by Albert Berger of Vienna. The other is a very good photo-algraphic reproduction of a pen drawing printed by Joseph Eberle of Vienna. The ninth number continues "transparent" printing methods, and also treats of tinplate printing in all of its various phases. Embossing is also made mention of. The fourth general division commences in this number and treats in a most exhaustive manner of chromo-algraphie (chromo-aluminum lithography). A historical sketch is first presented and thereafter the various technical phases of the subject are dealt with; the theoretical basis of aluminum plate printing; the preparation of the plates by etching and mechanical graining. Various transfer methods are described in detail, as well as the different systems of preparing the drawings, pen-and-ink, crayon, etc. Photo-algraphie is also described and the special preparation of aluminum etched reproductions is referred to and the specific requirements of transfers made clear, methods of retouching and correcting errors are described, and the statement is made that many corrections can be effected on aluminum plates that could not possibly be done on stone. Number nine contains a very good chromo-litho reproduction of St. Paul's Cathedral, London, by E. Nister of Nürnberg. Number ten concludes the series with a full description of the details of presswork in connection with aluminum plate methods, the manner of securing the plates, etc., for use on hand and power presses. The pages of the entire set are numbered consecutively and a very full index completes the series. The last number of the series contains an insert which is quite novel; it is a chromo-lithograph of a map, showing one hundred and twenty-four tints, produced by different combinations of three screen color-plates. This was executed at the Gesellschaft für Graphic Industry of Vienna. Price per part, 75 cents. The Inland Printer Company, Chicago.

ANNUAL CONVENTION OF PHOTOENGRAVERS.

The tenth annual convention of the International Association of Photoengravers was held at Detroit on July 12, 13 and 14. A large number of photoengraving firms was represented, delegates coming from various parts of the United States and Canada. The meetings were held in the rooms of the Detroit Employers' Association, in the Stevens building, the Detroit engravers having arranged that the convention should be held there.

On account of the death of the president, Mr. McKinstry, which occurred last fall, the vice-president, George A. Howell, of Toronto, presided at the meetings. Mr. Howell made an excellent presiding officer, and kept the business of the association moving with such smoothness that the convention was able to adjourn after only two days' sessions. Many matters of interest to the trade in general were considered, and various actions taken which will result beneficially to the association and its membership. The election of officers resulted in the choice of George A. Howell, of Toronto, president; L. F. Eaton, Detroit, vice-president; H. C. C. Stiles, Washington, secretary, and E. A. Le Gros, Chicago, treasurer.

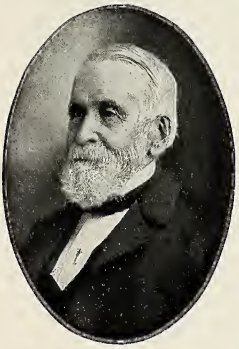
The following resolution in regard to the death of Mr. McKinstry was adopted, and it was ordered that a handsomely engrossed copy be prepared and sent to Mrs. McKinstry:

Whereas, It has pleased the Almighty to take from our midst our beloved friend and president, L. H. McKinstry, whose sudden death occurred on November 26, 1905, we, the International Association of Photoengravers, in convention assembled this thirteenth day of July, 1906, desire to express our deep sorrow at the death of Mr. McKinstry, and our heartfelt sympathy for his family in their bereavement and great loss; therefore, be it

Resolved, That in the death of Mr. McKinstry the International Association of Photoengravers have lost not only a member, but a sincere friend and conscientious worker, whose courtesy, kindness and sterling honesty of purpose has so endeared him to all of his associates that his loss is felt by each member of this association as a personal bereavement. And that, for the purpose of testifying to the high appreciation in which he was held by us as an association and as individuals, the secretary is hereby instructed to forward a copy of this resolution to his family and spread the same upon the minutes of the association.

OBITUARY

Loring Coes, who enjoyed the distinction of being the oldest man in the country actively engaged in managing a large manufacturing concern, died July 14 at his home in Worcester, Massachusetts, aged ninety-four years and six months. He was the inventor of the hand-screw wrench which bears his name. Reared as a farmer's son, he had educational opportunities that were only the most limited, and at the age of fourteen he was apprenticed to a carpenter. With his brother he started in business for himself shortly after reaching his majority, manufacturing parts of woolen machinery — in those days largely made of wood. In 1838 he invented the wrench, and since then he had been engaged in manufacturing wrenches that were shipped all over the world. It was Coes's boast that up to the time he was first taken sick, about six months ago, he had never spent a dollar for medicine. He was well known to printers everywhere as the head of the firm of Loring Coes & Co., manufacturers of "Micro-ground" paper knives.



LORING COES.

AMERICAN TYPEFOUNDRIES.

BY H. H. CLARK.

THE leading article in THE INLAND PRINTER for June, "The Discursions of a Retired Printer," has created much interest and comment. The accurate knowledge of the incidents in the history of American typefounding displayed by the writer makes the fact of several notable omissions in his narrative the subject of conjecture. The writer, however, promises that he may in a future article review the field of American typefounding comprehensively. Without unduly anticipating the intentions of the author, as a matter of interest it is timely to state that among the foundries whose work remains unmentioned by him, the most prominent in achievement is the house of Barnhart Brothers & Spindler, of Chicago, whose history covers nearly forty years of earnest and painstaking development. The founders of this house, originally printers and newspaper publishers, brought into their enterprise a thorough knowledge, from their practical experience, of the printers' needs. One of the greatest sources of loss and dissatisfaction which the printers at that time suffered was the inferior quality of the metal used in casting letter. The Barnharts, while developing reforms along other lines, devised and executed elaborate plans for exhaustive scientific tests of type-metal under a wide range of conditions, having regard to the suitability of each special formula for the character and uses of the type. The result is that one of the chief recommendations of the Barnhart type is its suitability for the work required of it, there being no less than seven formulas used in the manufacture of letter, such as a formula for type used in stereotyping, reducing the danger of "growing" to a minimum, a formula for script letter, a formula for type of a special hardness, and other modifications. Incidentally it may be pointed out that these admixtures make the type lighter, and as the house has adopted the plan of selling their type by the pound, while preserving a careful scheme of fonting, the printer is thus given relief from an arbitrary valuation.

The foundry is the oldest as it is the largest independent typefoundry in America, the management and ownership being practically the same since 1868. It has ten branch houses, covering all parts of this country, Mexico and South America, with agencies in various parts of the globe. They were one of the first typefoundries in the world to install machines for the engraving of matrices, and a number of years ago imported from France the highest development of perfecting typecasting machines then known, and which in the hands of the Barnharts has been brought to so high a degree of efficiency that they have exported these machines of their own building to a valuation of $30,000. These machines will cast two spaces and quads and letter-work at the same time. The claims of the foundry to distinction include a wide range of cognate subjects. The lining system and point set adopted by them, having regard to securing a uniformity in all sizes and a just proportionment of the descenders, with the unusual depth of the counter and other details of type construction, are points of merit appreciated by the customers of the foundry. They carry the largest combined stock of type, printing machinery and material in this country, and cast more type than all other Western foundries together. They own the letters patent for copper thin spaces and exclusively control in the West the right of manufacture for the popular Silver Gloss Electric Welded Chases and other more or less valuable aids. In brief, in enterprise and achievement, in the service of the printer, the house of Barnhart Brothers & Spindler has made a record which can not be obliterated from the honorable roll of those who have sustained and brought to its present perfection the art of typefounding in America.

PITY THE EDITOR.

So many editors regret,
When they return my stuff,
It seems too bad to make them sad —
The world is glum enough.
I read their deep regrets again,
And think, remorsefully,
Just what a sorry lot of men
The editors must be.— *New York Times.*

A BRIGHT SPOT.

I have been taking THE INLAND PRINTER through a local news-agent for the last four years, and I will, if spared, be taking it four years hence. The coming of THE INLAND PRINTER is one of the bright spots in the month to which I look forward in this great, lonely Northwest.— *Robert Dorman, Alberta, Canada.*

A LITTLE more patience, a little more charity for all, a little more devotion, a little more love; with less bowing down to the past, and a silent ignoring of pretended authority; a brave looking forward to the future with more faith in our fellows, and the race will be ripe for a great burst of light and life.— *Elbert Hubbard.*

DISCIPLES OF FRANKLIN.

NO. IX.— OLIVER PERRY.

MARCH the 8th — oh; most significant and momentous date in the month of zephyrs! — "Commodore" Oliver Perry, the old-time Chicago newspaper man and proofreader, had a birthday! It was, say the friends who helped him celebrate it, the very acme of birthdays, a birthday replete with gusto and good cheer, as becometh the natal day of a prince of good fellows who proudly points to the sixty-ninth notch on the stick of Time and blandly says, "It's a fine old world, isn't it, boys?"

At the apex of the cachinnation and good cheer, J. S. Zimmerman, the Press Club poet, arose with dignified deliberation, gracefully brushed back the imaginary hair from his mobile (Ala.) brow and read this original poem, entitled the "Ballade of the Commodore":

Ho, all ye ancient typos, far and near
Fill high your goblets with the sparkling wine
And drink, with honors, to our comrade here,
The genial "Commodore" is sixty-nine.
Three cheers for Oliver: all down the line!
Ay, twenty-three times three; and then one more;
Now drink ye, "bottom up," this toast of mine,
Long may he wave, our ancient "Commodore!"

When Piper Heidseick fails, pour out the beer,
Until the foam shall crown each lordly stein;
Then drink ye, bottle-deep, and give a cheer,
The genial "Commodore" is sixty-nine;
What's more, the veteran is feeling fine,
As in those days, ere he had touched a score;
And may we drink this toast, for many a year,
Long may he wave, our ancient "Commodore!"

Or take four fingers of McBrayer clear,
And pour it down that thirsty throat of thine,
Each friend of Oliver — lend me thine ear,
The genial "Commodore" is sixty-nine.
Tho' scanty locks around his temple twine,
His heart is young, as in the days of yore;
Drink deep the toast, I'm sure none will decline,
Long may he wave, our ancient "Commodore!"

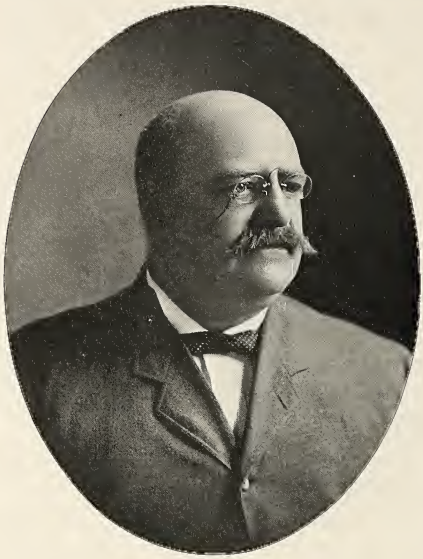
L'ENVOI.

Prints of Chicago, make his light still shine,
The genial "Commodore" is sixty-nine;
May he read proof until he's ninety-four,
Long may he wave, our ancient "Commodore!"

Oliver Perry, at the head of the old-time printers of Chicago, was for fifteen years connected with the Chicago *Journal* as literary editor, telegraph editor and other types of editor too numerous to mention, omitting only the fighting editorship — for the Commodore, be it known, has never had a sanguinary thought in his life. He is far too jolly and lovable for that. With the poet, we arise to the occasion and toast him! "Here's how!" bottoms up!

JOHN S. BURKE.

John S. Burke was born April 18, 1855, on West Lake street, next to the engine house, between Clinton and Jefferson streets, on the day of the enforcement of the Maine liquor law, which caused a riot. He attended the Scammon school on West Madison street and went to work as errand-boy for D. A. Cashman, on Dearborn, north of Randolph street, October 23, 1868. From there he went to Church, Goodman & Donnelley, then to J. W. Middleton, Dearborn street, south of the Tribune building; then to Horton & Leonard, on Randolph between Dearborn and Clark streets, until after the fire; then to J. J. Spalding, Monroe and Canal streets (James L. Regan as foreman); then Clark & Edwards, on Clark street; from there to Anderson & Lawson, on Fifth avenue, where he had the honor of printing the first copy of the *Daily News* for Mr. Meggie in the winter of 1875-76; then from there to Cincinnati, Ohio, to A. H. Pugh Company, until January, 1881; back to Chicago to Rand, McNally & Co., and from there to



JOHN S. BURKE.

the Ottawa Printing Company on Franklin street, which he left to embark in business in 1884.

THE NEWSPAPERS OF JAPAN.

In the matter of circulation the newspapers of Japan can not compare with those of London. There are, however, quite a number of daily journals published in Tokio and Osaka which boast of daily issues running well into six figures. The journal with the best circulation in Japan is the *Osaka Mainichi*, which sells to the extent of 220,000 copies a day. The *Asahi*, published in the same town, has nearly as large a circulation.

In Tokio the newspaper most widely read is the *Hochi Shimbun* (the *Bulletin News*), which sells 200,000 copies daily. The *Hochi* is the great opposition journal, the organ of Count Okuma, ex-Premier, and the most influential journal of the elder statesmen. Then there is the *Jiji Shimpo*, the *Nichi Nichi*, the *Kokumin* and the *Asahi*, of Tokio, all with circulations of between fifty thousand and one hundred and eighty thousand. The *Kokumin* is the government organ, and it will be remembered that when peace was signed the angry inhabitants of Tokio, enraged at its attitude and acquiesence with the peace treaty, attacked the offices and nearly caused a serious outbreak.

When I say that the *Hochi* is the opposition organ, it must not be understood that my paper showed any opposition to the government during the war with Russia. In point of fact, from the time when our relations with Russia were broken off, the newspapers of Japan, without any exception, supported the government and the nation.

The *Jiji Shimpo* is owned and edited by the son-in-law of Viscount Hayashi, the Japanese Minister in London,

while the *Nichi Nichi* is now the property of Mr. Kato, formerly Minister to England, and its editor is a Christian, Mr. Yokoi, who is a member of the Japanese Parliament.

The daily newspapers of Japan are much cheaper than are those of London, even in these days of the ascendency of the half-penny press. Most subscribers pay for their favorite newspaper monthly, and their subscriptions work out in some cases at a fraction of a farthing a day, and in none at more than a half-penny a day. This notwithstanding that advertisement rates in our papers are considerably lower than they are here. For small advertisements the highest rate I have heard of is 1 shilling per line, while for large advertisements I have never heard of more than $125 a page being paid for one insertion.

On occasions when we receive news of very great importance it is customary to issue special editions, but these are not (as they are here) complete copies of the paper. They are, on the contrary, merely leaflets, containing nothing but the particular item of important news. These are sold on the streets by newsboys at prices varying from 1 to 1½ and 2 cents.

The recent introduction of the serial story into English papers has been a feature of the Japanese press for thirty years past. It will doubtless amuse English people to know that the serial system is, in our press, frequently applied to the publication of leading articles and important political subjects. For instance, we may publish a column of a statesman's speech to-day, mark it "To be continued," give it another column to-morrow, and keep this up until it is finished a week later. Similarly with leading articles the same practice is frequently adopted.

The production of a newspaper, complicated though it is in England, is much more so in Japan. We can not use the Linotype machines for setting up articles. This must be done by hand, and when I tell you that in the Japanese language there are some fifty thousand different characters, of which twenty-eight thousand are in common daily use, you will understand that the compositor has to be a man of no small skill and ability.

The type-room of a Japanese newspaper is a large compartment, with shelves all around the four walls, and in setting copy the compositor has to run round and round the room picking out from the thousands of little receptacles the type he requires. It is at one and the same time both mental and physical exercise of a pretty strenuous description.

As an instance of the manner in which a Japanese newspaper is conducted, I may state that the staff of the *Hochi* consists of sixty-three editors, sub-editors and reporters. The staff is divided into some seven or eight departments, namely, army, navy, political, financial, economical, city, artistic and translating. Work begins much earlier than it does on the London papers. We can not, as you do in England, print news within a few minutes of its arrival in the office. From the time of an item of news being written to its appearance in print we require one or two hours, while you can do it in a few minutes.— *A Japanese Editor, in the London Express.*

EVIDENCE AGAINST IT.

"The *Society Record* printed some very flattering notes about me yesterday," began Miss Vane.

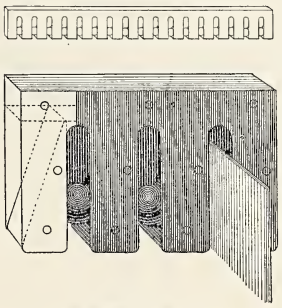
"Yes," replied Miss Chellus, "but wasn't it hateful of the editor to go and spoil it all the way he did?"

"Spoil it? Why, he said I was 'a beautiful belle of the younger set and——'"

"Yes, and then he put your picture right under it."— *The Catholic Standard and Times.*

A NOVEL DRYING RACK.

In the tenth and concluding number of "Die Chromolithographie," by Frederich Hesse, of Vienna, a novel drying rack is illustrated and described. The accompanying engraving shows the device. Two sheets of heavy tin are cut out so as to form a series of teeth ¾ inch wide with spaces between of ⅜ inch; the teeth are 2¼ inches long and the entire width of the side sheets is 2⅞ inches. Along the top a wooden separating strip ⅝ by ¾ inch is fastened between the tin sheets by means of wire nails. Wooden wedges 2¼ inches long, ¾ inch thick, having a rise of ¾ inch, are nailed between pairs of teeth as shown. Before



A NOVEL GERMAN DRYING PAN.

the top strip or the wedges are lastly put into place, glass marbles about ½ inch in diameter are put between consecutive wedges. These marbles serve to automatically hold the sheet or sheets of paper that may be passed upward into the slots by coacting with the back of one wedge and the face of another. When the paper is to be released, the balls are easily raised with a pencil.

The smaller diagram shows an entire length of rack, which may be made longer or shorter according to requirements. They can be supported from the wall by using shelf-brackets in an inverted position, and one or two may be placed so as to hold sheets separately, or two arranged to support one sheet.

When desired, they may be placed along the under side of a cupboard top or utilized in numberless ways, whether for drying or any other purposes.

ENJOYS EVERY LINE OF IT.

Never take my name off the subscription list for your paper. It is more to me than any other magazine that I read. I enjoy it from the ads. to the editorials, and am ever on the outlook for it.— *Chester A. Lyle, Freeville, New York.*

HAS A CLEAR CONSCIENCE NOW.

I was formerly a subscriber, and ever since neglecting to send the required amount for renewal my conscience has bothered me. THE INLAND PRINTER is a valuable magazine that no printer or publisher should be without.— *John E. Hersam, New Canaan, Connecticut.*

A JEWEL.

Enclosed please find check for subscription to THE INLAND PRINTER. The sample copy sent me has taught me ten times more than the mite I am sending you. Your publication is a "jewel" to the printer of to-day and the art of typography.— *John Thomason, Atlanta, Georgia.*

SPECIMENS

Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

COMMERCIAL specimens from F. C. Funnell, Plattsburgh, New York, are neat and tasty and form good examples of plain typography.

SPECIMENS from the Thomson Printing Company, Philadelphia, are original and attractive and show an appreciation of the correct use of color.

L. HIRSCHBERG, Seattle, Washington.—The note-head is original and very attractive, and can be classed among the "something different" printing.

J. P. KIRKPATRICK, Lewistown, Montana.— The statement heading is neat and attractive, although the decoration in the center is hardly in keeping with the balance of the job.

J. W. WILLETT, Burlington, Vermont.— Your specimens show much originality in design and are quite attractive. While the card is the best of its kind that has reached this department, the time involved in its composition could well have been put to a better purpose.

AN artistic and attractive specimen of railroad advertising is the booklet entitled "Pe-e-shag-may-gwa-ock," printed by the Wright & Joys Company, Milwaukee, for the Minnesota International Railway. The title is an Indian phrase, the translation of which is "Come into the wilderness," and one is certainly attracted to the wilderness by the beautiful legend and well-



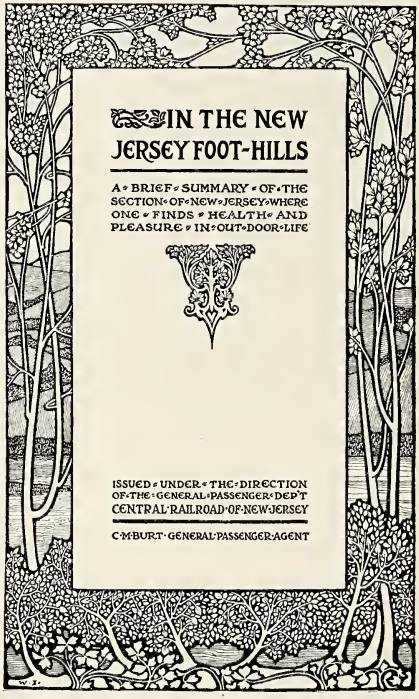
selected illustrations contained in the booklet. The cover, a reproduction of which is shown, is in three colors, and the balance of the booklet in black and brown with tints under the half-tones, the whole work being in keeping with the usual high standard of the productions of the firm whose imprint it bears.

JOURNAL-GAZETTE PRESS, Sidney, Ohio.— A tendency toward the use of too much ornamentation is noticeable in the specimens submitted. The blotter on which the time-cards are given would have been more attractive with a greater contrast in the colors — one of the colors lighter. At best this is a poor color combination, and even though two colors harmonize the most pleasing results will not be found in their use as full colors, but in the use of a shade of one color with a tint of the other.

THE Great Falls Stamp Works, Great Falls, Montana.— The program submitted is well printed for work of this class, the composition of the advertisements being very creditable.

O. V. BRADLEY, Caldwell, Idaho.— A lead on either side of the rules between the italic lines would have helped your letter-head considerably. But one series of italic should have been used.

TWO booklets — "In the Jersey Foothills" and "Seaside Resorts in New Jersey" — arranged and printed by The University Press, Cambridge, Massachusetts, for the Central Railroad of New Jersey, are worthy of especial notice. Both are profusely illustrated with half-tones from photographs, and the photography, plate-making and printing are of the highest order.



suggesting an art exhibit rather than a railroad booklet. A reproduction of one of the title-pages is shown. The original is in black and red, the rules and ornament in the center being in red.

IRVING S. BATH, Hillsboro, Oregon.—The letter-head is original and tasty and, while the color-scheme is permissible, a brighter color, such as a tint of orange or a tint of blue, would be preferable for the rules.

SPECIMENS of commercial printing from the Empire Printing Company, Spokane, Washington, are artistic and original, while those in colors show a careful regard for the harmony and proportion of the shades and tints used.

J. N. LARKIN & SON, Sacramento, California.— The covers submitted are attractive and the typography is excellent. The tint on the May cover is a trifle strong, however, giving a rather confusing appearance in the lower panel.

R. L. HILL, Columbia, South Carolina.— Your specimens are very creditable, both as to design and the use and distribution of color, the label for the R. L. Bryan Company, on pink stock, being the only exception. The combination there used is not pleasing.

FRANK H. WEST, Detroit, Michigan.—Your blotter is rather weak, owing to the fact that there are too many forces of attraction. The ornamentation and the distribution of color break up the design in a confusing manner and one does not readily grasp the important features.

BOATWRIGHT BROTHERS COMPANY, Danville, Virginia.— Your specimens are exceptionally attractive and well printed, the catalogue for the Southern

Female College being a unique bit of printing. The Eastern College catalogue is also a commendable piece of work. The mail-order specimen book is original and should prove a success.

H. H. Sturges, Charter Oak, Iowa.— The design for the program is unique, but it is doubtful as to whether it is more pleasing than the conventional shape would have been.

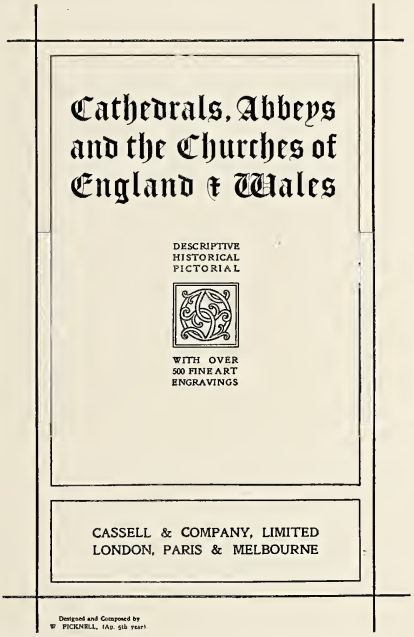
O. W. Dingman, Salem, South Dakota.— A size larger type, without letter-spacing, would have been better for the name of the bank on the first page of the folder. Shorter rules on the last page would also have been an improvement. Otherwise the specimen is very creditable.

Beardsley Brothers, Canton, Ohio.—The blotter is attractive and good in design, but the letter-head is neither artistic nor legible. A certain amount of legibility may be sacrificed in order to produce an original feature, but in such cases the end must justify the means. This can not be said of the letter-head in question.

James D. Bell, Troy, Alabama.— Many of your specimens present a crowded appearance, owing to the use of type-faces which are too large. In the letter-head for the Georgia Cotton Company all consideration for the harmony of type-faces and the display of the different lines in proportion to their importance seems to have been overlooked.

The Wade Printing Company, Clarksburg, West Virginia.— The initial page of the banquet menu and program would have been better with the ornament in the third line omitted. It not only divides the name in an unpleasant manner, but does not add anything to the appearance of the job. The other specimens submitted are very creditable.

The booklet of specimens of display work and machine printing executed by students in the classes in typography of the Borough Polytechnic Institute, London, England, during the session of 1905-6, has reached this department. It is 9 by 12 inches in size and contains in the neighborhood of one hundred pages devoted to a wide range of job composition and advertisement



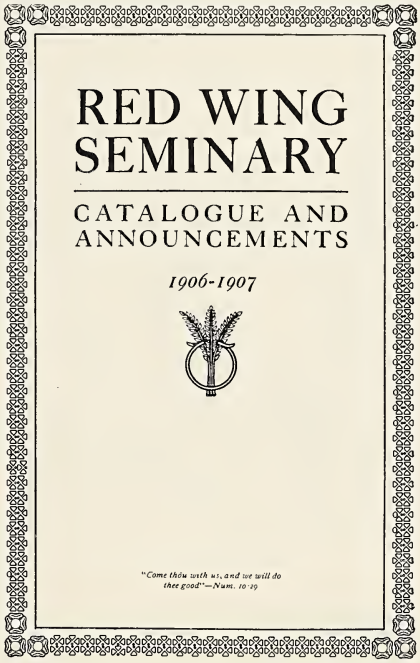
work. Many of the specimens are in two or more colors and present a very attractive appearance. A characteristic page is reproduced herewith. The original is in black and red, the outer rule and scrollwork in the small panel being in red.

Care in mechanical details and an appreciation of the correct use of color characterize the productions of The Bishop Press, Kansas City, Missouri. Among the late specimens from this firm is a booklet for the German-American Bank, the text of which is in a blue-gray with the illustrations in double-tone brown. It is well printed and forms an attractive advertisement.

Russell F. Blakey, Baldwin, Kansas.— Your specimens are neat and attractive. On the title-page of the Epworth League program the first line should have been spaced a trifle more and the ornament omitted. The upper group of type-matter on this page is too high, while the lower group is too low. Both groups should have been farther removed from the rules enclosing the page.

The sixth issue of "Art in Photography," published by the Photo Era Publishing Company, Boston, Massachusetts, is an exceptionally handsome production. The reproductions represent the best photographic workers of the world and embrace many beautiful subjects. There are fourteen of these reproductions, all mounted on cover papers from the Niagara Paper Mills, Lockport, New York.

The name D. Gustafson, Red Wing, Minnesota, on a package of specimens is evidence that much of interest is to be found therein. Originality in design, discrimination in the use of type-faces and color and care in the



mechanical details make his work of the best to be had. A reproduction is shown of the cover of a catalogue for the Red Wing Seminary. The original is printed in black on light-brown stock.

A. W. Dippy, Scranton, Pennsylvania.— Considering the class of people which forms the bulk of those to whom the circulars appeal, the color-schemes are good, although from the standpoint of color harmony they are rather strong. The copy of the journal is attractive and well gotten up. The President's testimonial brochure is an artistic bit of printing and the most attractive of the specimens.

A package of specimens from W. Holmes, Ltd., Ulverston, England, contains many excellent examples of catalogue and hook work. A book of some three hundred and fifty pages issued for the Great Central Railway and entitled "Journeys by Rail and Boat," is especially noticeable as a sample of railroad printing, as is also the "Illustrated Guide to the Holiday Resorts on the Furness Railway."

In connection with the meeting of the Federation of Women's Clubs the Chicago, Milwaukee & St. Paul issued a handsome booklet descriptive of the Pioneer Limited, its fast train to St. Paul and Minneapolis from Chicago and Milwaukee. The cover is beautifully bronzed and embossed and shows a three-color view along the route of this train. It is from the press of Wright & Joys Co., Milwaukee, Wisconsin.

"A Glimpse of Utah Where Health and Wealth Abound" is the title of an exceedingly attractive booklet just issued by the Passenger Department of the Denver & Rio Grande Railroad. The book was written by Mr. Edward F. Colburn and treats of the early settlement of Utah; the Mormons and Gentiles; the natural wonders of the State; its resources, and of its growing cities and towns. The whole State is clearly and

adequately described and a careful reading of this publication can not fail to be of benefit to any one desiring to keep posted on the resources and progress of our great Western Empire.

From the Robert L. Stillson Company, New York, has come an exceptionally artistic bit of printing. It is in the shape of a portfolio and booklet, the portfolio being intended as a cover for specimens to be sent out from time to time by The Fuchs & Lang Manufacturing Company, for whom the work was printed. The booklet is printed in two colors, with artistic endpapers, and the embossed cover, both in design and execution, is a beautiful piece of work.

H. Woedbauer, Peekskill, New York.— The spacing around the initial letter in the insert is faulty. Where an initial letter is outlined by a well-defined line, as in this case, the text should be aligned with the top of the decoration and not with the letter proper. Where an initial forms part of the first word the balance of the word should follow it closely and not be separated from it as are the succeeding lines. The space at the side and bottom of the initial should be equal. A shortening of the inner panel about three picas at the bottom would have been an improvement.

The outing spirit is strongly suggested by the souvenir of a summer-afternoon visit of the members and families of the Typothetæ Dinner Club of Kansas City to the suburban home of Mr. and Mrs. E. C. Bartberger on June 23. The souvenir consists of a booklet of twelve pages and cover, containing



a description of the day's festivities and numerous half-tones illustrating the way in which the day was spent. The cover, a reproduction of which is shown, is a clever conception. The wooden plate, paper napkin and spoon, all of which are tipped on, are full size and present a unique and attractive appearance.

Blotters have been received this month from the following: John T. Palmer Company, Philadelphia; H. M. Downs, Fitchburg, Massachusetts; Stettinger Brothers, New York; Mobile & Ohio Railroad; John W. Little & Co., Pawtucket, Rhode Island; The Johnson Press, Mount Vernon, Ohio; The Joseph Betz Printing Company, East Liverpool, Ohio; A. H. Harris, Walla Walla, Washington; The Copeland-Chatterson Company, Toronto, Canada; The Caxton Company, Cleveland, Ohio; The Samuel F. Kerr Press, Pittsburg, Pennsylvania; Williams & Wilkins Company, Baltimore, Maryland; Beattie & Hofmann, Portland, Oregon; Globe Engraving & Electrotype Company, Chicago; John W. Little & Co., Pawtucket, Rhode Island; John T. Palmer Company, Philadelphia, Pennsylvania; The J. M. Coe Printing Company, Richmond, Indiana.

THE BURNING OF THE SONNET.

I know a charming maiden, who once wrote a springtime sonnet,
And spent as much as two whole days of time and thought upon it.
She wrote with ink of crimson, and on both sides of the paper,
Then rolled it up and sealed with light-blue waxen taper.
And every day she waited, in exchange for her sweet sonnet,
The coming of the check with which to buy a new spring bonnet.
The man within his sanctum, when he saw the maiden's verses,
Used dreadful language (I've been told), in fact, resembling curses,
And then, with indignation and his angry passion growing,
He flung the springtime sonnet where the embers bright were glowing.
In vain the maiden waited — in her heart an anxious yearning,
For no one ever told her of the crimson sonnet's burning.

— *Newspaperdom.*

CONVENTION OF THE UNITED TYPOTHETAE OF AMERICA.

DELEGATES and visitors to the twentieth annual convention of the United Typothetæ of America began to arrive at the Iroquois hotel, Buffalo, New York, on Monday, July 16, from all parts of the country. Various formal and informal functions were provided for their entertainment, including a trip to East Aurora, the home of the famous Roycrofters, where an address by Fra Elbertus on the subject of "Not how cheap, but how good," was highly appreciated. On Wednesday morning the credentials committee made its report, showing one hundred and twenty delegates present, with fifty-seven alternates and sixty-four visitors. Mr. Edward A. Kendrick, the president of the Buffalo Typothetæ, was delegated to issue information to the press. Space at this time will not admit publication of the reports of officers. Suffice to say that all the reports met the warm approval of the delegates. On Thursday afternoon Mr. J. W. Van Cleave, of St. Louis, Missouri, president of the National Association of Manufacturers, read an address on the labor problem, the key-note of which was, "Liberty for all, special privileges for none."

From the Buffalo *Express* of Friday, July 20, we take the following report:

The twentieth annual convention of the United Typothetæ of America (employing printers) came to an end yesterday with the reëlection of the chief officers and adoption of an emphatic set of resolutions, denying an audience to President James M. Lynch and Vice-President J. W. Hays, of the International Typographical Union, and stating that the places of the strikers have been filled and that there is nothing to confer about.

The chief reëlected officers are: George H. Ellis, of Boston, president; William Green, of New York, vice-president; Thomas E. Donnelley, of Chicago, treasurer; John Macintyre, secretary. The executive committee will decide later the place of meeting.

Martin P. Higgins, president of the International Printing Pressmen and Assistants' Union, addressed the convention upon the terms of the next contract between the Typothetæ and his organization for the year beginning next spring. The terms of the contract are to be arranged between a committee of the pressmen and a committee of the Typothetæ. No demand was made for the eight-hour day, which was the cause of the strike by the compositors.

The letter received by the convention from the Messrs. Lynch and Hays is in full as follows:

George H. Ellis, President, United Typothetae of America, Iroquois Hotel, Buffalo, New York:

Dear Mr. Ellis,— Under date of July 17 we sent you the following communication, and as we have not received acknowledgment, we assume that the letter miscarried:

"Inclosed herewith please find circular letter 'To the delegates to the convention of the United Typothetæ of America.'"

We especially desire to direct your attention officially to the following paragraph in the circular referred to:

"We are ready for further conference, if your convention will instruct a committee to confer with a view to adjusting the differences that now exist. Failing in obtaining this conference, the temper of the members of the Typographical Union will demand a continuance of the present struggle. The speeches of the national officers of the Typothetæ have voiced a belief that the eight-hour day would come ultimately. The ultimate seems to have been reached." Very truly, (Signed) Jas. M. Lynch,
J. W. Hays,
Representing the Executive Council, I. T. U.

The convention unanimously and enthusiastically adopted the following preamble and resolution, a copy of which was immediately sent to Messrs. Lynch and Hays:

Whereas, The convention of the United Typothetæ of America, through its president, George H. Ellis, has received a communication from James M. Lynch and J. W. Hays, representing the executive council of the International Typographical Union, suggesting a conference between committees of the two organizations; and,

Whereas, The members of the International Typographical Union have seen fit to leave the employ of the members of the United Typothetæ of America, and the members of the United Typothetæ of America have filled these positions with other employees; be it

Resolved, By the United Typothetæ of America, in convention assembled,

that they have nothing on which to confer with representatives of the International Typographical Union, and Mr. Lynch and Mr. Hays be so informed.

Copy from minutes, July 19, 1906.

GEORGE H. ELLIS,
President.
JOHN MACINTYRE,
Secretary.

The letter accompanying the resolutions was as follows:

James M. Lynch, John W. Hays, City:

GENTLEMEN,—In reply to your communication received in the last hour and read to our convention, I hand you herewith copy of resolutions passed unanimously by the convention. Very truly yours,

GEORGE H. ELLIS,
President.

D. O. Oviatt, of Rochester, spoke on the convention's invitation, in explanation of associations of employers of labor. A committee of the Typothetæ was appointed to consider the advisability of adopting the plan.

Dr. C. S. Dickey, of Indianapolis, president of the Winona Technical Institute, spoke on the work of his institution, where trades are taught. A committee of the Typothetæ will consider the advisability of enlarging the printing department.

President Higgins spoke next, being greeted with prolonged applause. His remarks were met with great favor and a rising vote of thanks was tendered to him at his conclusion.

At the 2 o'clock convention, F. B. Hamblin, of Kansas City, Missouri, outlined a plan for carrying insurance risks on printing plants on a mutual basis. The fire committee was instructed to investigate and report, with recommendations.

Referring to the report of the committee on technical schools, the convention adopted resolutions approving the technical school work of the last year, as well as the proposals for the organization of an Eastern school, of a central school at Winona Technical Institute in Indianapolis, and of a Western school, with the executive committee to have full power in the matter.

As to the proposal to increase the rate of postage on second-class matter, the convention resolved that the plan would prove injurious to the publishers of periodicals, etc., and, therefore, a committee from the Typothetæ should object to the plan at a hearing to be held in New York before the Government commission on October 1.

Individual members of the Typothetæ subscribed for about thirty scholarships for a three-year period at Winona Institute. President Ellis appointed the following trade-school committees: Winona School — A. M. Glossbrenner, Indianapolis, chairman; Edward A. Kendrick, Buffalo; Tohy Rubovits, Chicago. Eastern School, to be established at Norwood, Massachusetts — J. S. Cushing, Norwood, chairman; Isaac H. Blanchard, of New York, and John Macintyre, of New York. Western School, to be established at Kansas City — Franklin Hudson, Kansas City, chairman; Joseph B. Havens, Kansas City, and F. B. Crahhs, Kansas City.

The committee to represent the Typothetæ at the New York hearing as to postal rates is William Green, Isaac Blanchard and John Eggers, all of New York.

A. F. Edgell, of Philadelphia, chairman, and Thomas Todd, of Boston, and Samuel Rees, of Omaha, constitute the necrology committee.

The executive committee consists of A. R. Barnes, of Chicago; I. H. Blanchard, of New York; J. S. Cushing, of Norwood, Massachusetts; Thomas W. Cadick, of Washington; H. K. Bean, of Grand Rapids, Michigan; F. I. Ellick, of Dallas, Texas; E. Laurence Fell, of Philadelphia; W. O. Foote, of Atlanta, Georgia; William J. Golder, of Pittsburg; Franklin Hudson, of Kansas City; Edward A. Kendrick, of Buffalo; Wilson H. Lee, of New Haven; Frank C. Nunemacher, of Louisville; Samuel P. Rees, of Omaha; C. M. Skinner, of St. Louis; John Stovel, of Winnipeg, and E. M. Watson, of Jersey City.

Just before the communication from the Typographical Union was disposed of, James A. Emery, of New York, secretary of the Citizens' Industrial Association of America, spoke for about an hour on the open-shop question. Long applause punctuated the address.

"The unanimous action of the convention," said a member of it, "in adopting the resolutions, following the receipt of President Lynch's letter, shows conclusively that the members of that organization are satisfied that they have established the open shop in the printing industry in the United States; have successfully resisted the demand for the eight-hour day, and can run their business successfully and profitably without the assistance of the International Typographical Union or its members."

William Green was chosen permanent chairman of the new executive committee, and Mr. Macintyre was continued as secretary. The executive council will consist of the president, vice-president and treasurer, ex-officio, and Messrs. Barnes, Blanchard, Golder, Kendrick, Frank C. Nunemacher, of Louisville, and J. Stearns Cushing, of Norwood.

"We stand pat," said one of the delegates at the conclusion of the convention.

GOD will not look you over for medals, degrees and diplomas, but for SCARS.—*Elbert Hubbard.*

TRADE NOTES

THE first issue of the Providence *Morning Tribune* appeared July 4. The new paper has the full leased wire telegraphic service of the Publishers' Press Association.

VICKSBURG Typographical Union No. 427, Vicksburg, Mississippi, announces that it is bending every energy to secure the 1907 convention of the International Typographical Union.

THE Nashville *Banner* announces that the McQuiddy Printing Company, of Nashville, Tennessee, has begun the erection of a five-story brick building on Fifth avenue, north, the investment being $45,000. A thoroughly up-to-date plant will be installed.

J. A. HOOD, the well-known Asbury Park (N. J.) printer, has this year taken charge of the publicity department of the Asbury Park Carnival Association, which annually holds a carnival in that city, a feature of which is the famous baby parade.

CERTIFICATES of incorporation in the amount of $1,000,000 have been filed with the Secretary of State of New York by the S. S. McClure Company for the organization of a publishing house as the outcome of the split between the partners of the firm of McClure & Phillips, publishers of *McClure's Magazine.*

BLOMGREN BROTHERS COMPANY, engravers and electrotypers, 76-82 Sherman street, Chicago, have a way of holding their employees in long terms of service. It is the custom of the firm to mark the occasion of an employee's quarter-century of service by a celebration, an incident in which is the presentation to the honored one of a gold watch and chain. The third of these celebrations was held on June 9, 1906, when John Anderson received the congratulations of his fellow employees and of his employers, on the anniversary of his first employment by the firm twenty-five years ago. Mr. Anderson, whose portrait is shown herewith, arrived in this country from Sweden in the spring of 1881. His first employment was with the Blomgrens. He quickly became Americanized, inasmuch as on the Fourth of July, 1881, he was so enthusiastic in celebrating that he accidentally shot a relative in the leg with a toy pistol. But the horror of that incident has become shaded off in the intervening years, and John's unctuous chuckle as he relates the circumstances of the tragedy leads one to the belief that he would like to go out and try it again. John is married. He has five children, all living, and owns houses and real estate in addition to his own home. His new gold watch and chain, valuable in themselves, are vastly more valuable in the story they tell of justice, faithfulness and honesty.



JOHN ANDERSON.

THE H. C. Hansen Type Foundry, of Boston and New York, has engaged Mr. George B. Munsey, who has been

identified with the trade during the past five years and who is well known to the printers in New York. Mr. Munsey will make his headquarters with the New York branch, at 43 Center street.

THE editorial and mechanical departments of the Salt Lake *Tribune* were damaged by fire the night of June 16, the loss being $60,000. The two upper floors of the building were destroyed, together with the Linotypes and stereotyping machinery. The *Tribune* has a $200,000 building in course of erection and had planned to move into it about September.

GEN. FELIX AGNUS, of the Baltimore *American*, and Charles H. Grasty, of the Baltimore *News*, have purchased the plant, etc., of the Baltimore *Herald*, the consideration being $62,000. Two presses, fifteen Linotypes and other mechanical equipment were included in the sale. It is said the *American* will issue an evening edition to occupy the field abandoned by the *Herald*.

IT is reported from Oakland, California, that Mr. Hearst has planned to establish a press-room in that city where the San Francisco *Examiner* will be printed to supply the Oakland side of the bay. The matrices are to be made at the main plant in San Francisco, and sent to the Oakland plant, where the stereotype plates will be cast and the papers printed and circulated.

THE Sprague Electric Company announces that it has reopened its office in San Francisco. The former office was destroyed by the earthquake, after which temporary quarters were opened in Oakland. The Sprague Electric Company is now permanently located in the Atlas building on Mission street, San Francisco, California, where all orders from that territory will receive prompt attention.

THE Star Engravers' Supply Company, 81 to 83 Fulton street, New York city, has opened a branch in Philadelphia, where a full stock of "Glossoid" zinc and copper-plates, charcoal, dragon's-blood, etching brushes, White powders, Russell powders and other photoengravers' supplies will be kept on hand ready for immediate delivery. This branch will assure customers in Baltimore, Washington and the Southern Atlantic States prompt service.

A NEW daily newspaper has been established at Fairbanks, Alaska, a prosperous mining town on the Yukon river, that was recently destroyed by fire. It is being rapidly rebuilt and the Tanana Publishing Company has begun the issuance of the *Daily Miner* there. A cylinder press, Linotype machine, etching plant and a first-class job-printing equipment were shipped from Seattle. Twelve men were also sent to fill the various positions on the paper. The *Miner* will sell for 25 cents a copy.

AT the Advertising Show recently held at Madison Square Garden, New York, a man watched the operation of a Dexter folding machine for a few minutes, then edging up to an attendant, asked: "Be that one uv them thar machines fur doublin' up papers?" "Yes, sir, it is." "Does it print 'em too?" "No, sir, only folds." "Don't it set the types either?" "No, sir." "How much does it cost?" "This machine? About seven hundred dollars." "Gosh all hemlocks, an' it don't do nothin' but double up papers."

THE Spencer & Hall Company, typefounders and dealers in printers' supplies, Baltimore, Maryland, whose establishment was completely destroyed in the great Baltimore fire, has just issued its first type specimen book to the trade. It is a commendable effort, as the company suffered a total loss and was compelled to supply a complete foundry equipment of machines, matrices, etc. The catalogue shows only the best selling and most popular faces. A varied assortment of borders, brass rules, etc., is shown. The electrotyping branch of its business has been turned over to the Shane-Beever Company.



ON THE MOUNTAIN TOP.
Photo by Eckler, Hot Springs, Arkansas.

THE business, property and effects of the Wicks Rotary Typecasting Company, Ltd., London, England, consisting of the factory at Blackfriars Road, London; the engineering works at Willesden; the good will of the business of typecasters, machinery, patents and patent rights, book debts, stock of type, stores, and effects of the company are to be sold to the highest bidder by order of the court in bankruptcy proceedings. This is the machine which has a product of sixty thousand finished types per hour, and which has been supplying the body type for the London *Times* and other English concerns.

THE Foos Gas Engine Company, Springfield, Ohio, under the great prosperity which the country in general is experiencing, is employing twice as many men in its shops at the present time as it did two years ago. Extensive purchases of machines have been made the last year, a recent order being for $20,000 worth of machine tools, lathes, planers, boring mills, drill presses, grinders, etc. Notwithstanding that the Foos Company has the largest exclusive gas engine factory in the world, having built strictly high-grade gas engines since 1887, its present equipment is inadequate to meet the increasing demand for its engines.

THE North American Engraving Company, of 225 Fourth avenue, New York city, which extensively advertised its patented background process for half-tones, by means of which stippled effects are produced quickly and cheaply, was granted a permanent injunction against the Knickerbocker Engraving Company in a suit for infringe-

ment, the Circuit Court for the Southern District of New York upholding the claims of the patent and restraining the defendants. The patent (No. 675,272) was granted May 28, 1901, to T. S. Fox and W. H. Mackey, and the Waterproof Film and Equipment Company is an exclusive licensee under the patent.

Boston Typothetae, of which J. Stearns Cushing is president, T. P. Nichols, vice-president, and G. W. Simonds, secretary and treasurer, elected the following delegates to the twentieth annual convention of the United Typothetæ of America, held at Buffalo, July 17-21, 1906: James Berwick, F. H. Gilson, Charles R. Goddard, W. B. Libby, H. M. Plimpton, Henry P. Porter, Herbert G. Porter, R. E. Sparrell, Thomas Todd, Samuel Usher, with Arthur S. Allen, Louis Barta, H. A. Brown, William Dunlop, Albert W. Finlay, J. Eveleth Griffith, A. N. Murray, Thomas P. Nichols, George W. Simonds, George H. Smith and H. C. Whitcomb as alternates.

The reorganization of the Rein Litho-Print Company, Houston, Texas, under the name of State Printing Company, is announced with officers and directory as follows: W. W. Willson, president; Frank M. Walker, vice-president and manager; directors, John H. Kirby, Kirby Lumber Company; W. W. Willson, State Printing Company; Max Andrews, Houston *Labor Journal;* Frank M. Walker, State Printing Company; George C. Timmins, First National Bank; DeWitt C. Dunn, Union Bank and Trust Company; Hugh Hamilton, Houston Ice and Brewing Company; George W. Carroll, Park Bank and Trust Company, Beaumont; F. A. Reichardt, Planters' and Mechanics' National Bank. This company assumes all liabilities of the Rein Litho-Print Company, and will collect all outstanding accounts. Mr. Rein retires from the company, and Mr. Frank M. Walker, late of Galveston, Texas, will have the entire management of the business. The plant has been entirely rehabilitated; new machinery and other modern facilities added. The company will also carry miscellaneous stationery, office furniture and filing devices.

The extent of the specialties produced by the Dennison Manufacturing Company is almost inconceivable. Many a printer labors futilely to produce something unique for a customer when with the aid of the Dennison Company he could save worry and money and please his patron. One of the most valuable books which any printer or any one at all interested in printing can have, and they can have it for the asking, is "Dennison's Dictionary," a reference book in two parts illustrating in half-tones and colors all the specialties produced by the Dennison Manufacturing Company with full explanatory text. The upper right corners of the pages are arranged on the thumb index style, so that the reader can turn up at once the section he desires. The various sections include: children's favors, etc.; picture framing, card and other parties, crepe and tissue paper and their uses, home and table decorations, stationery and desk supplies, useful articles for home and travel, Christmas holidays and weddings, fine paper boxes, clubs, lodges, colleges and bazars; tags, gummed labels, sealing wax and adhesives; banks, insurance companies, corporations; pin tickets, checks and suspension hooks; store and window decorations. The book in all contains 232 pages, and the finis states that Dennison is keeping right on making new things. The Dennison Company has houses at 26 Franklin street, Boston; 1007 Chestnut street, Philadelphia; 15 John street, New York; 128 Franklin street, Chicago; and 413 North Fourth street, St. Louis, Missouri. Write to any of these branches for one of the Dictionaries. N. W. Ayer & Son, Philadelphia, Pennsylvania, are the compilers and printers of the book.



This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

MODERN EMBOSSING.

The truth of the old adage, "Necessity is the mother of invention," was never better illustrated than in the invention of the Curtis Power Embossing Press. Mr. Samuel Curtis, the inventor of the press, has been engaged in the embossing business for twenty years as foreman of one of the largest embossing departments in the United States. His experience has led him through all of the stages of progress that has been made in producing this class of work, from the antiquated hand press to the perfect power press that is the fruit of his own brain. The so-called automatic inking and wiping presses that have come and gone during past years suggested to Mr. Curtis that a machine could be made that would ink, wipe and make the impression in one operation by power. This thought was born many years ago and the increasing demand for embossed stationery was an incentive to perfect a press that would reduce the cost of production.

Six years ago the first Curtis press was built and put into operation. It was built under difficulties, crude in construction, ungainly in appearance, but the principle upon which it was planned and constructed was proven to be the correct one, and this working model, as it could be appropriately called, was put into practical use and is to-day being operated by a large embossing establishment. The first press was followed by others, each succeeding press showing some improvement over its predecessor; some new feature added, some part simplified, some mistakes corrected.

During this period of development, Mr. Curtis was laboring under the difficulties that most inventors encounter — locating a machine builder with a properly equipped plant to build the press was a stumbling block. Having the presses built in various places, by different and indifferent mechanics, retarded its progress and it was apparent that the only solution of the problem was the organization of a company with complete facilities. The Modern Machine Company was the result; organized with ample capital, equipped with a model machine shop. This company employed expert draftsmen, patternmakers and machinists and the improvement and perfecting of the Curtis press was begun.

The improved Curtis Power Embossing Press is deserving of the motto the company has adopted, "The Press Without a Peer." It stands sixty-four inches high; weighs three thousand three hundred pounds; does not possess one superfluous feature, and is a model of simplicity and utility. The word embossing is used to describe so many processes that it might be well to make clear at this point the nature of the work done by the Curtis press. Steel die embossed stationery should not be confused with that class of work sometimes referred to as embossed work, where the matter to be raised is printed on an ordinary printing-press and raised by means of male and female brass dies.

In the class of work the Curtis press is designed to produce, the matter to be embossed is engraved on a steel die; the surface of the die is inked and the surplus ink is removed from the die by a wiping process, leaving only the engraved matter inked. The counter or male die is usually made of tar board by forcing an impression on the face of the board and cutting away all surplus board around the lettering or other engraved matter. This counter obviates the necessity of a second or male die. After the counter is prepared, the impression is made by placing the sheet to be embossed between the die and counter and bringing pressure to bear. It will readily be seen that this operation forces the engraving into the sheet and simultaneously inks the matter.

To those familiar with embossed work, this description of the process is unnecessary, but is entered into for the benefit of those who might contemplate embarking in the embossing business or adding this branch of the printer's art to their present business. Embossed stationery is not new, but in the day of the hand press its use was retarded by the expense of production. Not only that, but the designs were limited to a size not exceeding 1 by 3 inches, because the hand press could not be made to take a larger die. Under old methods, an energetic boy could produce one thousand five hundred impressions in a ten-hour day. All of this is changed by the Curtis Power Press. A die 3 by 7 inches can be used on the Curtis press with as perfect results as can be obtained with a die 1 by 3 inches used on a hand press. The speed of the Curtis press is only limited by the efficiency of the feeder. One thousand five hundred impressions an hour can be obtained; not for one hour, but in a steady run throughout a ten-hour day. Perfect registration where two-color or burnished bronze work is required has been given special attention in the construction of the Curtis press and this feature of the press is unexcelled.

Briefly described, the Curtis Power Press is an automatic machine that inks the die, wipes off the surplus ink and makes the impression all in one operation. The press can be operated with a two-horse-power motor or line shafting where electricity is not used. The inking and wiping apparatus is easy of access, as are all other parts of the machine. Notwithstanding this, the construction of the press is such that injury to the operator is almost a physical impossibility. Another strong point of the press is its mechanical simplicity. Bright boys of sixteen and eighteen years of age are operating Curtis Power Presses as successfully as older men and this is done in most cases without more than two weeks' instruction, and when the operator is familiar with embossed work, frequently in less time. With the advent of power presses, steel die embossed stationery has been adopted by leading business and professional men in all lines and it is recognized as the stationery of discriminating users. The modern printing establishment catering to the best trade is incomplete without a power embossing press.

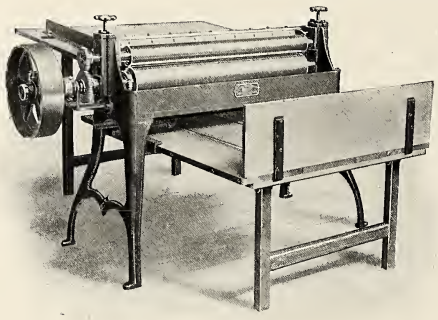
The Modern Machine Company has issued a complete descriptive and illustrated catalogue for the benefit of those interested. The Curtis press is not an expensive machine and is the only power embossing press on the market that is sold at a moderate price. In view of the results that are being obtained by users of the Curtis presses, it does not seem an exaggeration to say that this press is destined to revolutionize the embossing business. With the prohibitive cost of production removed, and the many trade engravers who are prepared to serve houses who sell embossed work without maintaining an engraving department, there is no doubt that embossed stationery will continue to become more popular and will maintain the place it now occupies with other high-class stationery.

The Modern Machine Company is located at 214 Spruce street, St. Louis, Missouri, and manufactures and sells the Curtis press exclusively.

PARAFFINE COATING MACHINE.

Manufacturers of all kinds of fine baked goods, confectioners, makers of baking powder, packers of tea, coffee, and all sorts of goods of which it is desired to retain the flavor and aroma and keep out moisture, have found in paraffine the only known substance for meeting these requirements and protecting their goods equally well as in metal packages. It makes a package which is air-tight, waterproof, odorless and tasteless.

The M. D. Knowlton Company, Rochester, New York, have for fifteen years built machines especially adapted for paraffining sheets of paper, folding boxes, news or strawboard, and these machines may be used for a great variety



PARAFFIN COATING MACHINE.

of other purposes, particularly by printers of waterproof paper signs which are exposed to the weather. They can also be used to coat with solutions of colored sizings or fillers, and may be used to print sheets of board by etching the bottom roll and using printer's ink in the reservoir.

Their machine will coat paper or board of any kind, lined or unlined, from tissue to board three-sixteenths of an inch thick. It is the only machine that will apply the paraffine economically, as by an adjustment of the rolls a thin or thick coat may be applied without daubing the other side of the sheet, a fault of most other machines. This adjustment may be arranged to such a nicety that the machine will in a short time save enough paraffine to pay for itself. Both sides of the stock may be coated at once if desired. This regulation is effected by an adjustable scraper and hand screw regulating the rolls, as shown in the cut.

The reservoir is of ample capacity, and is heated by steam or may be heated by gas or electricity if preferred. The rolls are of sufficient diameter, the journals ample in size, running in phosphor-bronze boxes. The machine is equipped with feeding and receiving tables, and the construction throughout is substantial. A margin of two inches in width may be left uncoated, which is desirable, as many different kinds of work require a margin for gluing. This blank space may be left on one side or end of the sheet to permit pasting or gluing on this margin when the stock is used for shells or boxes.

The M. D. Knowlton Company have sold a very large number of these machines, not only in the United States, but abroad, all of which are giving the best of satisfaction,

and they carry in stock for immediate shipment the thirty-four-inch machine, which will take sheets up to thirty-six inches wide. They build other sizes to order as desired, and will build them for paraffining or coating the stock from the roll, if so wanted.

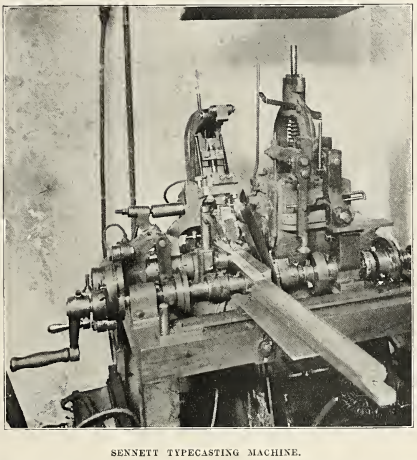
A NEW AUTOMATIC TYPECASTER.

The illustration shows a new machine designed to meet the increasing demand in the printing-office for a type-casting machine.

It automatically casts type of any size from six-point up to and including thirty-six-point. In changing from one size to another, it is only necessary to remove the body-piece or plunger and insert one of the required size. Then the front or right-hand half of the mold is moved into position against the new body-piece. All other parts are the same for all sizes of type cast. All adjustments are easily and quickly made.

The main or cam shaft is seen in front and just above the bed of the machine, making it easy of access for oiling and adjusting the cams. The mold carriage is directly in front of the metal-pot and to the left of the cam shaft, and is seated on top of the forked arm at the front of the machine. This forked arm carries the mold-carriage matrix holder and the bottom half of the mold, and moves them from the casting position in front of metal-pot to the ejecting position over the dresser. The movement of this arm is controlled by the double cam at the extreme front end of the cam shaft. By means of this double cam all lost motion in the movement of the mold is taken up.

The mold is composed of six parts, namely, right half, right jet piece, left half, left jet piece, body-piece and bottom half. All except the last are secured to the mold carriage shown on top of the forked arm. The left half and left jet piece are made stationary in the mold carriage, but the right half and jet piece are adjustable to accommodate the different sized body-pieces. These body-pieces are firmly attached to a slide extending up from the mold carriage, and answer the double purpose of a stop or liner in the mold for the set size and also as an ejector for pushing the cast type out of the mold into the dresser.



SENNETT TYPECASTING MACHINE.

The matrix holder is that part seated between the forks of the mold carriage arm and directly in front of the mold. It travels with the mold carriage and also has a motion at right angles to that of the mold carriage to enable the matrix to withdraw from the face of type in ejecting.

The dresser is shown to the right and below the mold carriage and in the illustration the type are seen emerging from the bottom of the dresser onto the stick that extends out over the cam shaft to the right. In the dresser the type is grooved on the bottom, the "nick" or "nicks" are cut in the sides and any burr on the top is trimmed off.

In the mold there are no ribs for producing the "nick" in the body of the type, as these are cut in by a set of revolving cutters, in the dresser, after the type is cast and ejected out of the mold. This feature does away with the necessity of having a mold for each size of type and also for each different "nick," one mold doing for all sizes.

The type as delivered by the machine is finished in every respect and ready for the compositor and is, it is claimed, the equal of the best foundry type. It is said that the machine has cast as high as sixty pounds of six-point type, roman face, in eight hours and has maintained an average of forty pounds of the same type per day of eight hours. On eighteen-point the average was one hundred pounds per day.

The Chicago *Tribune* has one of these machines in operation, casting type for its composing-room. The machine is manufactured by the Sennett Automatic Type Machine Company, S. J. Sennett, president, fourth floor Tribune building, Chicago, Illinois.

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

BOOKS.—A valuable set for sale cheap; 18 bound volumes INLAND PRINTER, Nos. IV to XXII. G 443.

FOR SALE.—Volume I of THE INLAND PRINTER, unbound, in good condition; best offer takes it. G 57.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

BOOKBINDERY.—Well established, well equipped, in thriving Western city, extensive college, high school, large amount of work, one competitor, large contracts ahead; will sell for $3,800 or take partner with $2,000, bookbinder, ruler or printer preferred, to attend canvassing and finances; incumbent practical bookbinder; for particulars address G 404.

COUNTRY NEWSPAPER office in country town; no competition; Washington hand press, Gordon jobber, cutter, plenty job and body type; money-maker; man in charge wants to leave; as I have good paying job-office in Richmond have decided to sell the country newspaper; $600; bargain. LEWIS C. KING, Richmond, Ind.

FOR SALE.—A fully equipped, modern printing plant in city of 25,000; volume of business last year $45,000; a rare opportunity; terms cash; for stock sheet and details address G 398.

FOR SALE.—All or half interest in a one-machine plant doing railroad, commercial and corporation work, in the best town on earth.—Denver. Address F. C. BIRDSALL, Box 681.

FOR SALE.—Bookbindery with up-to-date machinery; only one other bindery in the city of 50,000. G 413.

FOR SALE.—Complete newspaper and job plant in excellent condition, publishing daily 1,600 circulation, weekly 2,500, in growing city of 12,000 population; doing between $2,500 and $3,000 of business per month and steadily increasing; in splendid field to improve. For particulars, price and terms write C. A. McCOY, Lake Charles, La.

FOR SALE.—Modern equipped newspaper, book, job and poster plant in large manufacturing town near Chicago; only printing-office in town. G 447.

FOR SALE.—Power newspaper and job plant in Southern Nebraska; easy terms; publish two papers; good reasons. GAZETTE, Roseland, Neb.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

FOR SALE — Printing office clearing $2,400 a year. Address P. O. Box 144, Bridgeport, Ohio.

FOR SALE — Up-to-date, new 3-press shop; association town, good business. Address HENRY FOLK, 1404 31st ave., S., Seattle, Wash.

FOR SALE OR EXCHANGE FOR FARM LAND — Continued ill health makes it necessary to dispose of one of the finest plants of its size in the Middle West; making lots of money and increasing fast; a field yet only partly developed; employs 15 people; new machinery; elegant location; will sell for part cash and the balance on long time, or would prefer to trade for good farm, balance in cash or time; this will pay you to investigate; don't write unless you mean business. G 437.

JOB OFFICE — A leading office in growing Puget Sound city of 30,000; long established, profitable business; one cylinder, two job presses, and other machinery; electric power; 200 cases type, abundant fixtures; excellent ground-floor location, roomy, attractive shop; price, including $1,000 paper stock, $4,500; will sell whole or half interest as mutually agreeable. EDSON & IRISH, Bellingham, Wash.

JOB PRINTING BUSINESS for sale in Minneapolis, Minn.; in excellent reputation among good class of customers; growing steadily; plant new and well selected; inventory, $3,000. G 408.

PRINTING BUSINESS FOR SALE — An established paying business in West Virginia city of 12,000; equipment practically new, plant and stock will inventory about $2,500; a bargain to quick buyer, or will sell interest and give entire management to practical man; good reasons for selling. G 419.

PRINTING-OFFICE — Established business; inventory $3,500, sell for $3,000, $1,500 puts purchaser in possession; profits $2,000 to owner. Address A. S. PERRY, Fairfield, Conn.

ROANOKE, VA., presents an exceptional opportunity for the location of an up-to-date job-printing office of from $10,000 to $25,000 capital, doing a general line of railroad and commercial work; population, 30,000; headquarters of Norfolk & Western railway system, general office of Tidewater railway, now building, will be located here; city growing rapidly. Parties contemplating a change in location or establishing a new business would do well to investigate Roanoke, the gateway of the famous Flat Top coal region. For further particulars address T. W. HUDSON, Secretary-Treasurer Roanoke Typographical Union, No. 60, Roanoke, Va.

Publishing.

SEND for my new booklet "How to get into the Specialized Publishing Business." EMERSON P. HARRIS, 253 Broadway, New York.

FOR SALE OR EXCHANGE.

A BEST MANUFACTURED STEREOTYPE PAPER, which is ready for use, for Cold or Hot Process; our Patent Front and Back Matrix Paper requires only two seconds to make ready and to beat or to press in; each matrix will cast a number of excellent plates; we mail 12 Front and 12 Back Matrix sheets for $1; we also have the largest selection of Stereotype Machinery of latest improvements. F. SCHREINER MFG. CO., Plainfield, N. J.

DEXTER BOOK AND PAMPHLET FOLDER for sale; 32 by 46, with automatic feeder; first-class condition and a bargain. G 322.

ELECTROTYPE FOUNDRY for sale; Hoe's best equipment; automatic molding press and all machines of same grade; electric motors; complete and little used; write for inventory. ELECTROTYPE CO., Norwalk, Ohio.

FOR SALE — Four two-letter Linotype machines; first-class secondhand machines. BROWN-COOPER TYPESETTING CO., 341 Dearborn st., Chicago.

FOR SALE — Harris press, No. 12-N; used one year; Jenney electric motor attached; $3,225 outfit for $2,500. THE C. C. BURBANK CO., St. Paul, Minn.

FOR SALE — Hoe pony, 21 by 24, in running order, and used regularly till high-grade press same size was recently put in; need the room; any reasonable cash offer accepted. MESSENGER JOB PRINTING CO., Owensboro, Ky.

FOR SALE — One Bullock perfecting web press, 6, 7 or 8 column, 4 or 8 page, including complete stereotyping outfit, all in perfect condition; can be seen in operation; speed 6,000; am moving — no use for it; will sell at one-fourth its value. POWERS-TYSON PRINTING CO., Grand Rapids, Mich.

FOR SALE — Two 37 by 52 Campbell book and job presses; one 28 by 42 Campbell Complete; these machines will be sold at a very low price for spot cash. G 451.

FOR SALE — 7-column quarto Hoe drum; $600. G 71.

FOR SALE — 245 lbs. 10-point time-saving mail type, 34 mail list galleys, 2,200 12-point reglet, cut 9½ picas, and Rukenbrod mailing machine; nearly new, all set up and tied in packages; enough type for 3,000 2-line addresses; will sell at half original cost; write for detailed schedule. PARLIN & ORENDORFF CO., Canton, Ill.

HARRIS PRESS FOR SALE, in first-class condition; has sheet, card, and envelope feeds; for further particulars write or call at No. 106 6th ave., New York (6th floor).

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with The Inland Printer Employment Exchange and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job-printers, 7; Monotype operator, 1; Linotype operators, 7; machinist-operators, 6; Linotype machinist, 1; foremen, 3; all-round men, 2; bookbinders, 4; make-up, 1; stoneman, 1; photoengravers, 6; artist, 1; pressmen, 7; proofreader, 1; editor, 1. Registration fee, $1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

All-Around Men.

WANTED — All-around experienced union job-printer; must understand job presses; $15 to $18; state age and experience. A. J. LAUX, Lockport, N. Y.

Artists.

ARTISTS: THREE — One expert machine retoucher, one expert color man who understands the painting in of plates and picking out of three-color work, one up-to-date letterer who can originate and design in the general run of commercial work; good wages to good men; comfortable workrooms; steady employment. NOLAN DAVIS CO., Market and Franklin sts., San Francisco, Cal.

Bindery.

WANTED — Paper rulcr. Address S. B. Newman & Co., Knoxville, Tenn.

Composing-room.

FOREMAN OF COMPOSING-ROOM wanted by a large Eastern house doing a general line of catalogue and publication work; must possess an expert knowledge of laying out the work in order to get the very highest results obtainable in a composing-room; only a man of wide experience, who is well acquainted with all improved methods and equipment, with exceptional ability to systematize, and make reports and records of production; one who knows how to make the department a model one and who can at all times measure up to the situation; steady position and an opportunity for advancement to the right party; open shop; state age, experience, reference and salary expected. G 400.

FOREMAN WANTED — Sober union man, all around, and thoroughly reliable and competent; good job. THE HERRIN NEWS, Herrin, Ill.

PRINTER — A stone-hand, who with plenty of good material and help is capable of handling the cylinder work in a large job and publication office in New York city, also to pass on register, margins and make-up; to the right man a steady position at the highest salary will be offered, with possibility of a foremanship; 54-hour office. Address, stating reference, G 411.

WANTED — A first-class A-1 job compositor to work on typefounders' specimens; must be able to get up original designs in composition and furnish copy; don't write unless you can absolutely fill above requirements, as none but a thoroughly competent man can hold the job; liberal salary with chance of increase to the right man. Address Printing Department, P. O. Box 5263, Boston, Mass.

Engravers.

HALF-TONE PHOTOGRAPHER, to go to Boston, Mass.; also line photographer who has done some half-tone work to work up into half-tone photography. G 342.

Manager.

WANTED — An experienced and practical man to manage a job and newspaper plant, with a daily and weekly paper, doing an annual business of over $25,000; desire the party able to buy an interest in and take full charge of the business. For particulars address G 262.

Operators and Machinists.

WANTED — Linotype operator or Linotype operator-machinist; 8-hour shop; write immediately, stating experience and wages expected. Address Box 513, Boulder, Colo.

Pressroom.

PRESSMAN WANTED capable of taking charge of job department where only the best grade of half-tone, gold, color, and leaf work is handled; address with particulars, WALCUTT BROS., 143 Center st., New York city.

Knife Grinders

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E — To stand on bench. Dry grinding only. 26-in. $50, 32-in. $55, 38-in. $60.
Style A — With iron stand. Wet or dry grinding. 26-in. $75, 32-in. $85, 38-in. $90, 44-in. $100, 54-in. $115, 60-in. $150. With water attachment, $10 extra.
Style C — Extra heavy. Wet and dry grinding. 54-in. $185, 60-in. $185, 75-in. $205, 90-in. $225.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N. Y.

HELP WANTED.

Pressroom.

WANTED — First-class cylinder pressman capable of doing half-tone catalogue work; non-union. THORNTON-LEVEY CO., Indianapolis, Ind.

WANTED — Working foreman for job presses; non-union. THORNTON-LEVEY CO., Indianapolis, Ind.

Salesman.

WANTED — A first-class printing-ink salesman for Southern territory; a man of experience preferred. SOUTHERN INK CO., Savannah, Ga.

WANTED — High-class salesmen, experienced in selling type and printers' supplies, for States of Wisconsin, Illinois, Kansas, Nebraska, Minnesota and Dakotas; applications of inexperienced men will not be considered. G 415.

LINOTYPE COMPOSITION.

TO PUBLISHERS — Operator-machinists will install their Linotypes and contract for 75,000 to 150,000 ems composition daily. G 423 New York office INLAND PRINTER.

SITUATIONS WANTED.

DO YOU WANT HELP FOR ANY DEPARTMENT? The Inland Printer Employment Exchange has lists of available employees for all departments, which are furnished free of charge. The following are now listed with us, seeking employment: Pressmen, 8; stereotyper, 1; ad.-men, 4; proofreaders, 2; inkmaker, 1; photoengravers, 4; job-printers, 9; stoneman, 1; artist, 1; cartoonist, 1; editors and reporters, 4; bookbinders, 5; superintendents and foremen, 19; all-round men, 3; make-ups, 2; advertising and business managers, 2; ad.-writer, 1; solicitor, 1; Linotype operators, 13; machinist-operators, 13; Linotype machinists, 7. THE INLAND PRINTER COMPANY, Chicago.

Advertising.

ADVERTISING MANAGER desires new connection. I have for nearly five years been holding one of the best managerial advertising positions in the United States, and for nearly 20 years have studied and worked on the proposition of effective publicity. I am an originator of successful advertising and selling plans (both general and direct), a writer of advertising, a manager and executive, and have thorough practical knowledge of advertising agency work, salesmanship, publishing, printing, commercial art and photography, and engraving. I want to hear from heads of large concerns only. Salary, reasonable figure for first year, until I have demonstrated. G 433.

Artists.

WANTED: SITUATION — Cartoonist and all-around newspaper illustrator. G 445.

Bindery.

WANTED — By experienced finisher, position by September 1; prefer Colorado, Washington, or Oregon. G 427.

WANTED — Position as foreman in bindery of medium size; West preferred. G 426.

Composing-room.

A-1 NON-OPERATOR AD.-MAN wants steady position by September on magazine, news or trade paper; do all layout, handle Linotype matter, competent to take charge ad.-room; union. G 412.

WANTED — Situation by first-class job compositor; middle West preferred; union. G 182.

Electrotypers.

A THOROUGLY EXPERIENCED electrotype foundry manager, who is a practical electrotyper, desires to make a change. G 444.

Engravers.

GOOD HALF-TONE OPERATOR will accept position at once with reliable firm. C. D. STEWART, 224 ave. C, San Antonio, Tex.

Managers.

A GENTLEMAN of fine business acumen, who is a thoroughly practical pressman and high up in management of all other departments connected with the printing business, desires to change connection; position sought: superintendent of plant or foreman of large pressroom; East preferred; commensurate salary expected; gilt-edge references to those interested. G 422.

SITUATION WANTED — Manager or superintendent of printing plant by experienced and successful man, now holding good position; 25 years' experience in all departments; full knowledge of allied trades; gilt-edge references furnished. H, lock box 336, Chicago.

WANTED — Position as foreman or superintendent of pressroom or printing plant; have had 10 years' experience on cylinder and rotary web presses, understand stereotyping and composition thoroughly. G 397.

Newspaper.

TOWNS OR INDIVIDUALS wishing newspaper started write hustling, reliable newspaper man and printer; 12 years' experience all departments; college education; married; doesn't drink, smoke, gamble; references. G 448.

Operators and Machinists.

LINOTYPE MACHINIST-OPERATOR (printer), swift, clean, able to handle intricate composition (catalogue work, foreign languages), would change present place of employment. G 421.

LINOTYPE OPERATOR — Young man of good steady habits, with some knowledge of machine mechanism, desires position in union office outside of Chicago; speed, 2,500 ems an hour. G 416.

LINOTYPE OPERATOR-MACHINIST, now handling plant of machines, desires change; West preferred; newspaper day work; experienced, first-class, married, steady, reliable, and thoroughly competent; can rebuild, install or overhaul machines; piecework preferred, or will consider taking charge of a plant of machines either time or piece; speed, 7,000 minion; union; position must be permanent; state wages and full particulars in first letter; no $18 job solicited. G 434.

MACHINIST-OPERATOR — Can take charge of large or small plant; will consider proposition either as operator, machinist, or machinist-operator; no boozer, married; expert workmanship guaranteed; 10 years' experience. G 435.

OPERATOR-MACHINIST — 250 lines brevier an hour. G 440.

WANTED — Linotype operator of fair speed desires change; reliable, sober; union. G 256.

Pressroom.

CYLINDER PRESSMAN — Desiring to make change; 10 years' experience with best classes of work; good on Dexter feeder; married; union, sober, steady and reliable, and can furnish good references if necessary. G 33.

CYLINDER PRESSMAN, first-class on fine half-tone and color work; 18 years' experience, capable of taking charge; Western city preferred. W. A. HILL, 4 S. Ada st., Chicago.

SITUATION WANTED by No. 1 half-tone and color pressman; high grade. G 175.

Miscellaneous.

WANTED — Position as superintendent, estimator, or traveling salesman with a reliable house in an Eastern or Southern city; thorough knowledge of all branches of printing, lithographing and bookbinding; has thorough system of keeping track of work, accurate percentage system of costs; ten years inside and five years traveling experience; at present traveling in the West; will make change September 1. G 428.

WANTED — Steady position by an up-to-date country printer; union, no boozer, age 25, single; has had experience as foreman in country offices; best of references furnished. G 407.

YOUNG MAN, thorough country printer, with university education, desires position as editor and manager of first-class country weekly, or as business manager of daily newspaper; Republican, Middle West preferred; now employed; first-class references. G 418.

WANTED TO PURCHASE.

SMALL DAILY wanted. FRANK H. KNOX (broker), Albany, N. Y.

WANTED — Secondhand power cutter, about 33-inch, in first-class condition. MAGNOLIA PAPER CO., Houston, Tex.

WANTED — Secondhand varnishing machine, 25 by 50 or larger. G 432.

WILL BUY single-letter Linotype machines from publishers or printers who contemplate renewing plants with two-letter and more modern machines. M. A. J., 25 E. 14th st., New York city.

MISCELLANEOUS.

A COLD SIMPLEX STEREOTYPING OUTFIT, $17 and up, produces the finest book and job plates, and your type is not in danger of being ruined by heat; simpler, better, quicker, safer, easier on the type, and costs no more than papier-maché; also two engraving methods costing only $5 with materials, by which engraved plates are cast in stereo metal from drawings made on cardboard; "Ready-to-use" cold matrix sheets $1. HENRY KAHRS, 240 E. 33d st., New York, N. Y.

ANYBODY CAN MAKE CUTS with my simple transferring and etching process; nice cuts from prints, drawings, photos are easily and quickly made by the unskilled on common sheet zinc; price of process, $1; all material costs, at any drug store, about 75 cents. Circulars and specimens for stamp. THOS. M. DAY, Box I, Windfall, Ind.

PRINTERS everywhere find the producing of imitation typewritten letters a most profitable side line. Ours is the leading circular letter firm in Chicago, printing millions of letters weekly on our platen and Harris presses. We make our own inks and typewriter ribbons, and guarantee perfect work in every way. Full instructions for operating the process furnished all users of our supplies. No apparatus of any kind required, and no royalties.
Prices: Ink for circular letter printing, per lb., any color, black, blue, green, purple, brown or red, per lb.....$2.50
Typewriter ribbons exactly matching, per dozen..... 4.00
Special prices to large users.
M. M. ROTHSCHILD, Circular Letter Specialist, 96 Fifth ave., Chicago.

STEWART'S EMBOSSING BOARD — Easy to use; hardens like iron, 6 by 9 inches; 3 for 30 cents, 7 for 50 cents, 12 for 80 cents, postpaid. THE INLAND PRINTER COMPANY, Chicago.

THE COMFORT BRACE APRON FOR PRINTERS can not be excelled for ease and comfort; no uncomfortable straps pulling at the neck; easy and permanent adjustment at waist and sides; made from best quality duck, black denim and 3A ticking, and sent prepaid for 50 cents. Pat. June '06. HATTON MFG. CO., Lebanon, N. H.

TWENTY-FIVE CENTS BUYS IT — My trade-getting, money-making plan; bonanza for small print-shops; circular free. COOK, 930 W. 36th, Los Angeles, Cal.

OUR COLOR DESIGNS FOR PRINTERS' BLOTTERS are building business for those who use them. Only one shop in a town can get them. Write for samples and particulars.
CHAS. L. STILES, Printers' Cuts, Live Stock Cuts, Poultry Cuts, COLUMBUS, OHIO



Taken entirely apart with the fingers in a few seconds.

WHAT task in the pressroom is more disagreeable, and looked upon with more disgust, and is more shirked, than the cleaning of the old-style jobber fountain? And, no doubt, with good reason, too. It almost seems as if the machinists who built it not only did not understand the pressman's requirement, but either conspired to make it a difficult task or totally overlooked the fact that frequently it would be necessary to take it apart. Then when it has become so foul as to utterly refuse to work, it is attacked with screw-driver and monkey-wrench. After the washup comes the difficulty of readjusting, which, with jumping pawl and changing impression, is no trifling matter either. Fortunate, indeed, if the jobber is not kept out of commission for several hours.

NOT SO WITH THE NEW CENTURY. The whole operation of taking apart and cleaning and putting together again (and that without wrench or screw-driver) under no circumstances need exceed five minutes. And, after putting together, there is absolutely no readjusting, as the adjustment has not been disturbed in the cleaning. It is ready for operation the instant the washup is completed. MORAL: Make money by equipping your jobbers with the NEW CENTURY.

FOR ALL SIZES CHANDLER & PRICE, CHALLENGE, AND ALL GORDON PRESSES.

Get a descriptive circular from your dealer or from us. Always specify your presses.

The WAGNER MFG. CO., Scranton, Pa.

I AM pleased with the fountain. In the matter of taking apart and cleaning it is way ahead of them all. W. C. GRISWOLD, Centerbrook, Conn.



SPATULA CUT CATALOGUE (7th ed.). Thousands of beautiful and appropriate half-tone and line cuts for ads., booklets, etc. Over 100 pp., 9½ x 12½. 50c. (refunded on $2 order). **BEAUTY BOOK**—Full-page art pictures from photos of 60 of the most beautiful women in the world, 26c. Electros for sale. Both 70c. Stamps taken. SPATULA PUB. CO., 100 Sudbury Building, BOSTON, MASS

SECONDHAND MOTORS

We carry a stock of 800 machines, all finished like new and fully guaranteed. All voltages, sizes and kinds. Write us to-day.

GUARANTEE ELECTRIC CO., Adams and Clinton Sts., Chicago



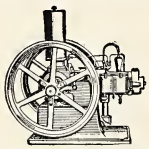
PRINTERS Write on your business letter-head to **R. Carleton Engraving Co., Omaha, Neb.,** for the latest copyright LODGE CUT CATALOGUE——————— Book, **"When Papa Rode the Goat."** Colored plates. 100 illustrations. Many fearful things. 15c. by mail, to printers only.



Gilson Gasoline Engine
"GOES LIKE SIXTY"
All Sizes. Send for Catalogue.
GILSON MFG. CO.
68 Park St., Port Washington, Wis



HEADQUARTERS FOR
EMBLEM CUTS
YATES BUREAU of DESIGN
263-269 Dearborn St. CHICAGO, Ill.
Send Stamp for Booklet: Write on your Business Stationery



THE MIETZ & WEISS OIL ENGINES

Marine, 1 to 100 H.-P. **Stationary, 1 to 70 H.-P.**

Operated by common kerosene oil. Automatic in operation, absolutely reliable and uniform in speed. Especially adapted to operating printing presses and Linotype machines. Does not affect rate of insurance.

Send for Catalogue.

A. MIETZ, 128 Mott St., New York

The Inexorable Count of the Judgment Angel



is not more sure than the records kept by the

DURANT COUNTERS

Stop the waste in pressroom and bindery.

Ask your dealer or write for catalog.

W. N. DURANT CO., Milwaukee, Wis.



LOOK! WIRE LOOPS
To Hang Up Catalogs or Pamphlets

The Universal Wire Loop

Is the cheapest and best device for "Stringing" Catalogs, Directories, Telephone Books, Prices Current, etc.

Look Better and Won't Break or Wear Out.

Let us send sample and quote you prices.

Successors to Universal Wire Loop Co.
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DETROIT . . . . . MICHIGAN



THE MAN FROM JOPLIN, MISSOURI,
AFTER BEING SHOWN
The superiority of and the economy in using **Jones' Spaceband Repair.**
You can be shown free for the asking.
Address PHILIP F. JONES, Box 174, Atlanta, Ga.



LET US SEND YOU A SAMPLE OF OUR

"ESSO"

Molding and Polishing Graphite

Prices furnished gladly.

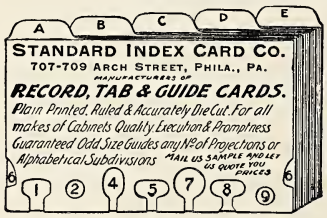
THE S. OBERMAYER CO.
CINCINNATI CHICAGO PITTSBURG



"Roughing" for the Trade

We have put in a ROUGHING MACHINE, and should be pleased to fill orders from those desiring this class of work. Three-color half-tone pictures, gold bronze printing, and, in fact, high-grade work of any character, is much improved by giving it this stippled effect. All work given prompt attention. Prices on application. Correspondence invited.

THE HENRY O. SHEPARD COMPANY
120-130 Sherman Street, CHICAGO



ALL CARDS CUT AND RULED SINGLY.
LIBERAL DISCOUNT TO THE PRINTING TRADE.

ROTH MOTORS



This cut shows six C. & P. Job Presses and an "Optimus" Cylinder Press driven by

ROTH MOTORS

SOLD BY

Barnhart Bros. & Spindler

Roth Bros. & Co., Inc.
27 SOUTH CLINTON STREET - - CHICAGO, ILLINOIS

Come, let's talk it over

IF OUR METAL is good enough for the Chicago Tribune, why not for you?

GREAT WESTERN SMELTING AND REFINING CO.
CHICAGO

Star Engravers' Supply Co.
TRADE MARK REGISTERED
GLOSSOID BRAND
POLISHED ZINC AND COPPER PLATES
81-83 FULTON ST.,
NEW YORK CITY.
U.S.A.

Acme Ink Reducer

IS ALWAYS USED IN ALL HIGH-GRADE INKS

Prevents "picking" or "pulling" of paper, "filling-up" of fine-line cuts or small type.

Satisfactory Presswork is never secured with *any* grade of ink that is not in proper working condition.

High-Grade Inks, no matter how good, *seldom* do good work without a *satisfactory reducer.*

The Value of Acme Ink Reducer, when used in any ink (to you), depends entirely upon its merits to produce satisfactory results.

The Use of Acme Ink Reducer by all leading printers is a proof.

Acme Ink Reducer is the *best* for all printers' use.

SAMPLE FREE, POSTPAID

ACME COMPOUND COMPANY, Elkhart, Ind.

AMERICA'S MOST POPULAR RAILWAY
CHICAGO AND ALTON
PERFECT PASSENGER SERVICE

BETWEEN

CHICAGO AND KANSAS CITY,
CHICAGO AND ST. LOUIS,
CHICAGO AND PEORIA,
ST. LOUIS AND KANSAS CITY.

THROUGH PULLMAN SERVICE BETWEEN CHICAGO AND

HOT SPRINGS, Ark., DENVER, Colo.,
TEXAS, FLORIDA, UTAH,
CALIFORNIA AND OREGON.

IF YOU ARE CONTEMPLATING A TRIP, ANY PORTION OF WHICH CAN BE MADE OVER THE CHICAGO & ALTON, IT WILL PAY YOU TO WRITE TO THE UNDERSIGNED FOR RATES, MAPS, TIME-TABLES, ETC.

GEO. J. CHARLTON,
GENERAL PASSENGER AGENT,
CHICAGO, ILL.

MODERNIZING PRINTING PLANTS

The entire problem. Buildings and equipment complete

RECENT WORK

Snyder & Black Bldg. — McGraw Publishing Co.
Iron Age Building — Bartlett & Co.
J. J. Little & Co. — John C. Rankin Co.
William Steiner Sons & Co.

WALTER S. TIMMIS, *Consulting Engineer*
Member American Society of Mechanical Engineers
150 Nassau Street - - - - NEW YORK

Pressmen's OVERLAY KNIFE

This Knife has been subjected to a careful test for quality of temper. It will be found to hold a keen edge and to be of much flexibility, enabling the operator to divide a thin sheet of paper very delicately. In all respects it is of superior manufacture. The blade runs the entire length of the handle and is of uniform temper throughout. As the knife wears, cut away the covering as required.

PRICE, POSTPAID, 25 CENTS

THE INLAND PRINTER CO.
120-130 SHERMAN STREET :: CHICAGO
116 NASSAU STREET :: NEW YORK CITY

Vest-Pocket Manual *of* Printing

A full and concise explanation of the technical points in the printing trade, for the use of the printer and his patrons

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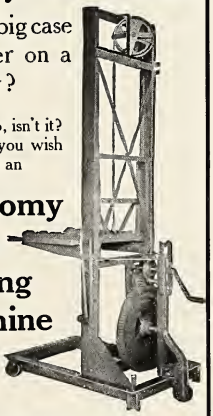
Convenient vest-pocket size. Neatly bound in leather, round corners; 86 pages; 50 cts.

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116 Nassau Street, NEW YORK — 120-130 Sherman St., CHICAGO

Have you ever tried to lift a big case of paper on a hot day?

It's a job, isn't it? Makes you wish you had an

Economy Steel Tiering Machine



ECONOMY ENGINEERING CO.
58-64 N. Jefferson St., Chicago, Ill.
Foreign Agents: Parsons Bros., New York

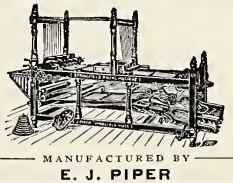
Quality Metals

for printers are the kind BLATCHFORD makes — Linotype, Monotype, Stereotype, etc., etc.

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CHICAGO, U. S. A.

EASTERN OFFICE—5 Beekman St., New York

The Springfield RULING MACHINE



MANUFACTURED BY
E. J. PIPER
44 HAMPDEN ST., SPRINGFIELD, MASS.

THE INLAND PRINTER—AUGUST, 1906.

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THE HENRY O. SHEPARD CO., 57 PRINTERS, CHICAGO.

OUR VACATION IS OVER



"SAW WOOD"

is in order – prepare for the Fall Boom in the Printing Business

YOU DO THE PRINTING



WE SAW THE WOOD

J.W. BUTLER PAPER CO.

CHICAGO

THE ANNOUNCEMENT



of the date we shall begin to cast full

WINTER ROLLERS

will be made this season through the mail, and will be sent about September 10.

Although the season is still warm, everybody is looking toward the cold weather, and spare moments are devoted to preparing for it in all lines. In the printing trade some time should be spent in selecting such Rollers as are practically out of commission or that need renewing, preparatory to sending to us, that no delay may occur when our notice is received.

Those who have never bought of us would find it to their advantage to write to either of our factories before placing their orders through their customary channels.

Herbert M. Bingham

BINGHAM BROTHERS CO.

FOUNDED 1849

ROLLER MAKERS

NEW YORK - - - - - - - - 406-408 Pearl Street
PHILADELPHIA - - - - - - - 413 Commerce Street

Allied with BINGHAM & RUNGE, Cleveland

"MACHINE-CAST" PRINTERS' ROLLERS
TRADE MARK
ESTABLISHED 1849

In the advertising of Old Hampshire Bond we are working toward the betterment of the quality of paper used in business correspondence and literature.

We are showing the buyers of printing that quality should be considered first, cost afterward.

In suggesting

Old Hampshire Bond

to your customer you are educating him along the right lines.

Good printing, good paper and good prices are closely allied. That which makes for one makes for the other.

We are working together, or we should be, for our interests are mutual.

Hampshire Paper Company

We are the only Paper Makers in the world making Bond Paper exclusively

South Hadley Falls, Mass.





Reduction of Front Cover Page — Hamilton New Wood-Type Catalogue.

Now Ready!

The largest and finest Wood-Type Catalogue ever issued. Printed with perfect-height Wood Type on fine enameled paper and hand-sewed. Tells all about

Hamilton's Improvement in Wood Type

? Did any printer ever hear of a Wood-Type manufacturer guaranteeing the height of Wood Type to be absolutely true and uniform?

Did any printer ever see a font of Wood Type, made previous to January 1, 1906, which was absolutely uniform in height and that did not require underlaying or overlaying.

The fact is Wood Type has heretofore varied in height from the thickness of a sheet of paper to the thickness of thin cardboard. This has been unavoidable, owing to the peculiar warping qualities of the end-wood blocks from which the Wood-Type letters are cut.

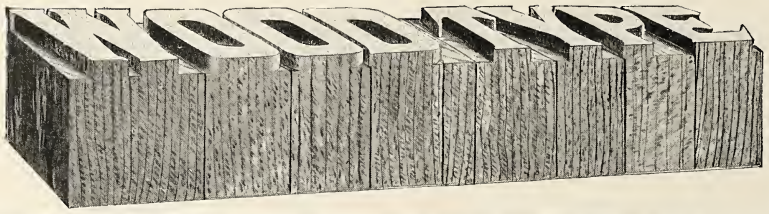
The Hamilton Mfg. Co. are pleased, however, to announce that they have just perfected a machine they have been working on for several years. This machine is fully covered by patents, and it gives this company a monopoly on Wood Type, so far as quality is concerned.

With the aid of this machine we can guarantee to supply Wood Type which will be as true in height as metal type. Every printer will know what this means. It is of tremendous importance to the users of Wood Type. All stoppages of the press are avoided. It costs about $2 per hour to stop a cylinder press, and sometimes more. A good many hours are wasted every year underlaying Wood-Type forms. This is all unnecessary with Hamilton's Improved Wood Type.

We stand ready to back up this guarantee to any extent. All Wood Type which is not found to bear out our claims can be returned to us at our expense. We are now making nothing but perfect-height Wood Type, the result of twenty-five years' study and experience in the manufacture of such material.

FOR SALE BY ALL FIRST-CLASS DEALERS

TEST YOUR WOOD TYPE FOR HEIGHT



TEST YOUR WOOD TYPE FOR HEIGHT

DISCOUNTS ON WOOD TYPE

The discount on full fonts, or where 26 pieces of a kind are ordered, is **50 per cent from catalogue prices.** Since January 1, 1906, the following **extra quality discounts** have been allowed on Wood Type:

On orders of Wood Type amounting to $50 and less than $100 net, and given for shipment at one time by one purchaser, the discount will be **10 per cent in addition to the present discount.**

On orders amounting to $100 and less than $250 net, under similar conditions, the discount will be **15 per cent additional,** or **50 and 15 per cent.**

On $250 and less than $500, **20 per cent additional,** or **50 and 20 per cent.**

On $500 and over, **25 per cent additional,** or **50 and 25 per cent.**

HAMILTON'S—Best Type at the Best Prices

The Government Printing-Office at Paris, France, has just awarded a large contract for Hamilton's Improved Wood Type. This order was taken in competition with the Wood-Type manufacturers of France and Italy, and also the celebrated Wood-Type cutters of Switzerland, and with the French duty against us, all of which is significant.

HAMILTON'S PERFECT-HEIGHT WOOD TYPE IS THE BEST WOOD TYPE EVER MADE

Eastern Office and Warehouse
RAHWAY, N. J.

THE HAMILTON MFG. CO.

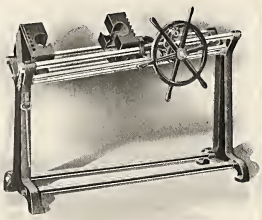
Main Office and Factory
TWO RIVERS, WIS.

A VALUABLE LITTLE LINE GAUGE WILL BE MAILED FREE TO EVERY PRINTER WHO WILL ASK FOR IT



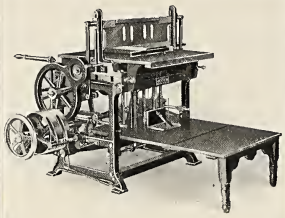
CUTTING MACHINES EXCLUSIVELY. SIXTY SIZES AND STYLES

DEXTER PROFIT PRODUCERS



THE BEST BUNDLING PRESS ON EARTH

Quick in action.
All racks and gears cut from solid steel.
Geared to give the most power with the least exertion.
Range, 3 x 6 to 9 x 9 inches; floor space, 22 x 60 inches; weight, 650 pounds.
As rack-teeth are cut on tie-bars, nothing projects beyond the frame.

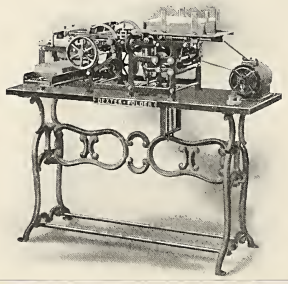


THE MOST POWERFUL BLANK-BOOK FOLDER

Folds sections 6 x 6 to 28 x 28 inches up to half an inch in thickness.
Folds just as fast as sections can be fed.
No rollers used.
Immense pressure secured by heavy iron jaws pressed together by extremely powerful toggle.
The earning capacity of this machine is apparent to every bookbinder.

THE MOST SUCCESSFUL LETTER-CIRCULAR FOLDER

Feeds automatically.
Folds 80 to 100 a minute.
Folds sheets 8½ x 11 inches, or the half sheets 5½ x 8½ inches, making the regular letter fold on the full sheets and two parallel folds on the note size.
Strongly built and perfectly adjusted to stand years of hard and constant service.



Requires little attention further than keeping a supply of sheets on the feed-table and removing folded sheets when packing-box is full.

Makes a very large saving both in time and money over hand folding.

Floor space, 2 feet x 3 feet 10 inches; weight, 250 pounds.

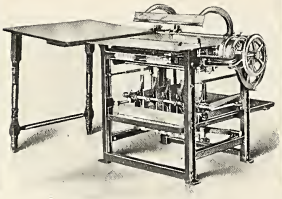
24-INCH SINGLE FOLDER

A machine for making one fold in any number of sheets from 1 up to 24.
Especially designed for putting a parallel fold in work already folded to two or three right-angle folds, two or more on.
Tight pressure is secured by passing sheets through a pair of calendering rollers.
Speed as fast as sheets or signatures can be fed.
Floor space, 4 x 6 feet; weight, 1,500 pounds.
A very good investment for the catalogue and booklet maker.

THE PONY CIRCULAR FOLDER

Folds sheets 6 x 9 to 14 x 20 inches.
Three or four right-angle folds.
Parallel third and fourth folds.
Note or letter fold.
Pastes eight pages, if required.
Floor space, 33 x 42 inches; weight, 1,200 pounds.

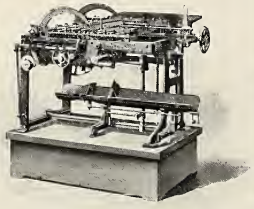
The variety of work this folder is capable of makes it an especially profitable machine for the job-printer.



DEXTER FOLDER CO.

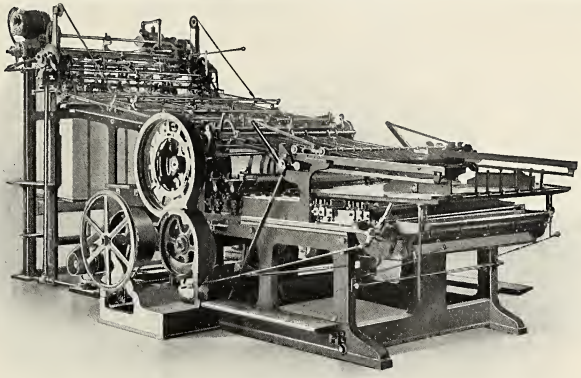
MAIN OFFICE AND FACTORY:
PEARL RIVER, N. Y.

NEW YORK BOSTON
CHICAGO SAN FRANCISCO



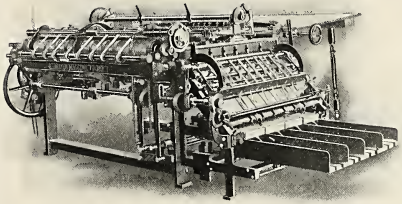
DEXTER

Feeders Folders Cutters



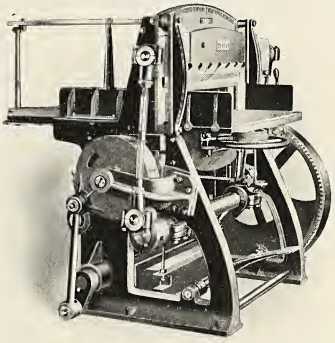
DEXTER AUTOMATIC PRINTING-PRESS FEEDER

DEXTER FEEDERS FEED as fast as the job will stand and with a positiveness in accuracy that is distinctly their own. A tested assemblage of tested parts. Constructed by the highest class of mechanics. You prove their speed and accuracy in your own plant before purchasing.



DEXTER QUADRUPLE MAGAZINE FOLDER

DEXTER FOLDERS FOLD, and they do it accurately. Not sometimes, but all the time. You can depend upon the Dexter to work twenty-four hours a day, and do fast and accurate work every minute. We can furnish any style of folder it is possible to build.



DEXTER AUTOMATIC CLAMP CUTTER

DEXTER CUTTERS CUT smooth and true. The improved design of our Automatic Clamp and rigid knife movement enable us to guarantee perfect accuracy and a cutter that is from 10 to 50 per cent heavier and stronger than any other.

S A L E S A G E N T S

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T. W. & C. B. Sheridan Co., London, Eng.
Canada, J. L. Morrison Co., Toronto
Australia, Alex. Cowan & Sons
Melbourne, Sydney, Adelaide
South Africa, John Dickinson & Co.
Cape Town, Johannesburg and Durban

DEXTER FOLDER CO.

Main Office and Factory — PEARL RIVER, NEW YORK

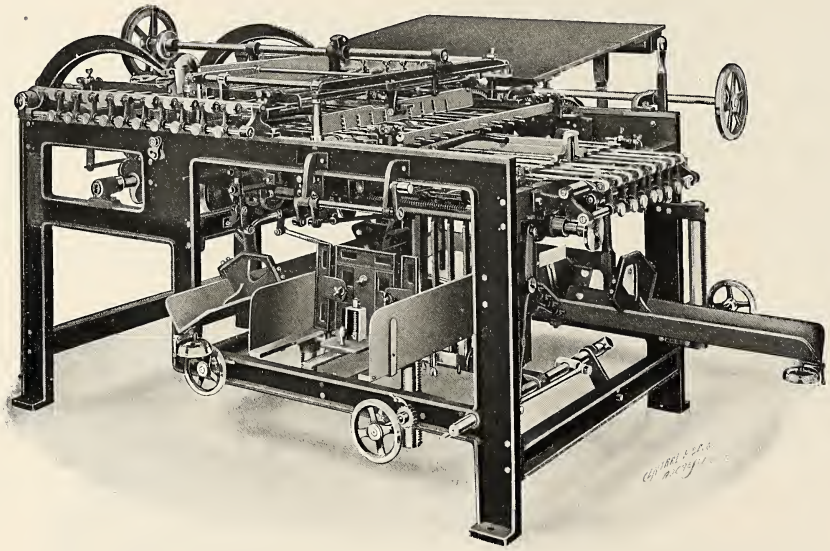
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The

"TOGO"

Catalog and Book Folder



For Fine Art Catalog Makers.

Performs its work both in *regular* and *oblong* folds.
Folds 6, 8, 10, 12, 16, 18, 20, 24 and 32 pages.

Made by

Brown Folding Machine Company

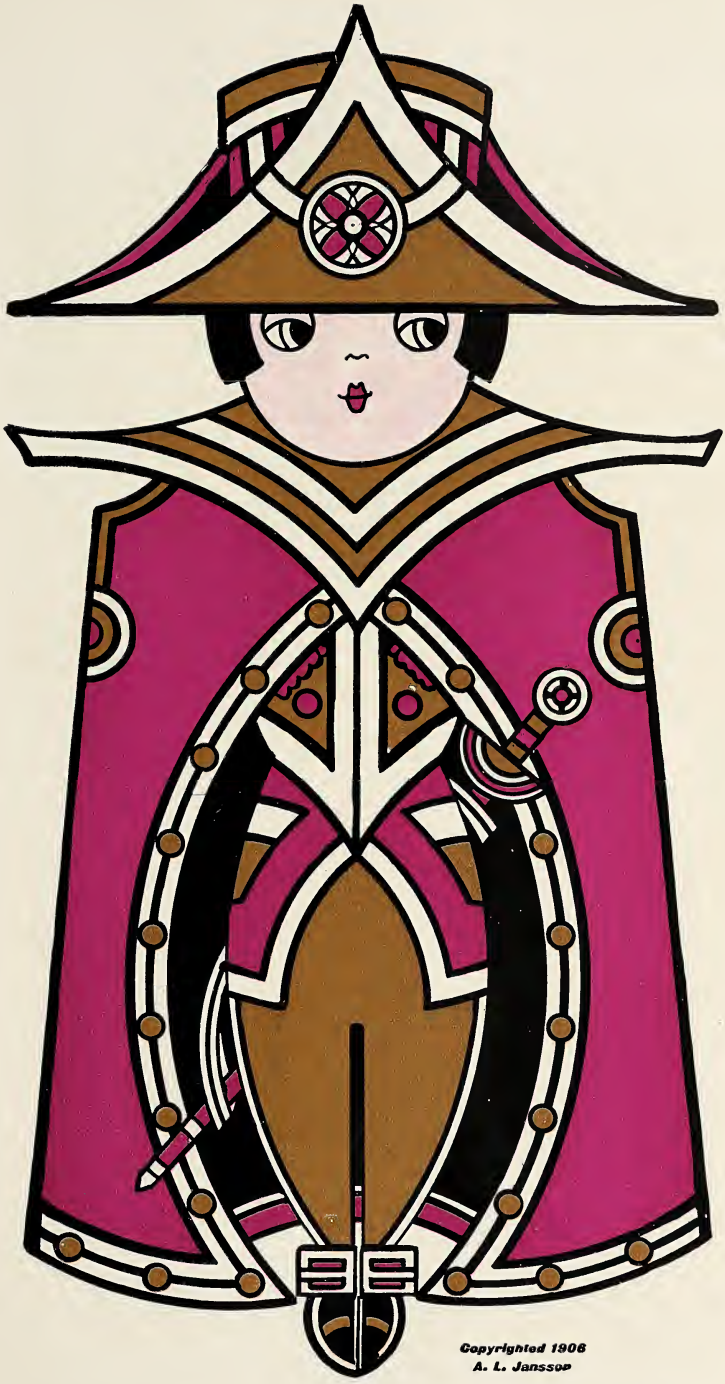
Erie, Pa., U. S. A.

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150 Nassau Street

Chicago, Champlin & Smith
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Get the
QUEEN CITY INK
Habit

H. D. BOOK, 40. BROWN, 139. MAGENTA, 3610.



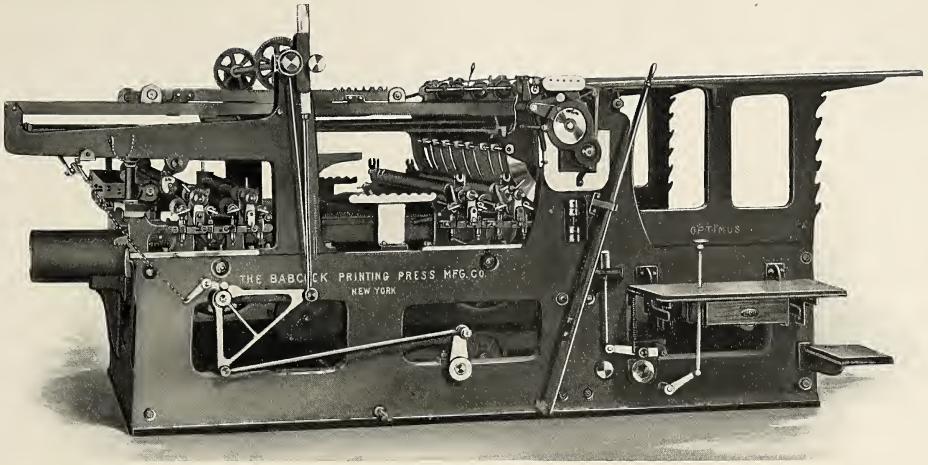
"THAT PLEASED EXPRESSION"

Produced with

HALF-TONE BLACK. 2805.

The Queen City Printing Ink Company

CINCINNATI - CHICAGO - BOSTON - PHILADELPHIA



THE BABCOCK PRINTING PRESS MANUFACTURING CO., NEW LONDON, CONNECTICUT
New York Office, 38 Park Row. John Haddon & Co., Agents, London. Miller & Richard, Canadian Agents, Toronto, Ontario.

BARNHART BROS. & SPINDLER, WESTERN AGENTS, 183-187 MONROE STREET, CHICAGO
Great Western Type Foundry, Kansas City; Great Western Type Foundry, Omaha; Minnesota Type Foundry Co., St. Paul; St. Louis Printers Supply Co., St. Louis; Southern Printers Supply Co., Washington; The Barnhart Type Foundry Co., Dallas; E. C. Palmer & Co., Ltd., New Orleans; Fundicion Mexicana de Tipos, City of Mexico. On the Pacific Coast—The Southwest Printers Supply, Los Angeles; Pacific Printers Supply House, Seattle; Pacific States Type Foundry, Oakland, Cal.

The Babcock Optimus

The Babcock Optimus

Replying to an inquiry on May 21, 1906, the following opinion of the Optimus was expressed by a user:

Answering your favor of May 18, in regard to the Optimus press, wish to state that we have five of the latest improved presses of this manufacture in constant use in our plant. After making a careful investigation of several kinds of presses we selected the Babcock for four reasons:

(1) Because it is a smooth running, simple press.

(2) It gives accurate register, and cannot be beaten for two, three or four-color work where perfect register is required.

(3) The Optimus delivery affords the sheet an excellent opportunity for drying before the sheet is delivered, thereby preventing offsetting.

(4) We put in one press on trial, and found it would do even more than the manufacturer represented.

It is a press that grows on a pressman, and every one of our men likes the press. You will make no mistake if you buy a Babcock press.

The Babcock Optimus

SET IN BARNHART OLD STYLE

Profitable Advertising
THE MAGAZINE OF PUBLICITY
KATE E. GRISWOLD, PUBLISHER JAMES BARRETT KIRK, EDITOR
140 BOYLSTON STREET
Boston, Mass June 30-06

Champion Coated Paper Co.,
Hamilton, Ohio
Gentlemen:-

We trust you will be pleased with the appearance of the July issue of PROFITABLE ADVERTISING in which we are introducing for the first time your double coated "pure white" stock. The general effect and particularly the halftone results are certainly very much improved and we shall hope for continued good results.

Yours very truly,

PROFITABLE ADVERTISING

Kate E. Griswold

Publisher

A NOTE OF THANKS
WITH REASONS THEREFOR

We take this opportunity of acknowledging, to our friends and patrons, our high appreciation of the patience and kindness which they have vouchsafed us during the period of transition in moving our plant from "Colt's," Hartford, to our new factory, Long Island City.

What it means to pull up, ship and replace about forty carloads of machinery, special tools, fixtures, patterns, etc., can only be adequately realized by those who have "been there."

All hands were called to quarters April 16, for breaking down; in May we were under steerage way; in June we had accelerated to about three-quarters speed; in July we "hit a fair gait," turning out forty-five presses, and for August the peg is set at sixty plus; as we are running overtime, five nights a week, on eleven hours shift.

During the foregoing period we have been behind orders to the extent of some one hundred and thirty-five presses; and, in consequence of inability to accept orders for close delivery, we have lost from fifty to seventy-five which might have otherwise been booked.

When considering what the foregoing means, in downright loss to the Art Preservative of Arts, one must needs be aggrieved!

But, with our improved and increased facilities, we hope to shortly correct all this and resume the more normal condition of sellers —clamor for orders.

We should esteem it a privilege to forward a copy of our new catalogue to any printer, embosser or paper-box maker who will signify a desire to receive it. The cover is worked in color and is embossed. Moreover, there is some matter in this book which we have the temerity to assert is worth any *REAL* printer's while to make the acquaintance of.

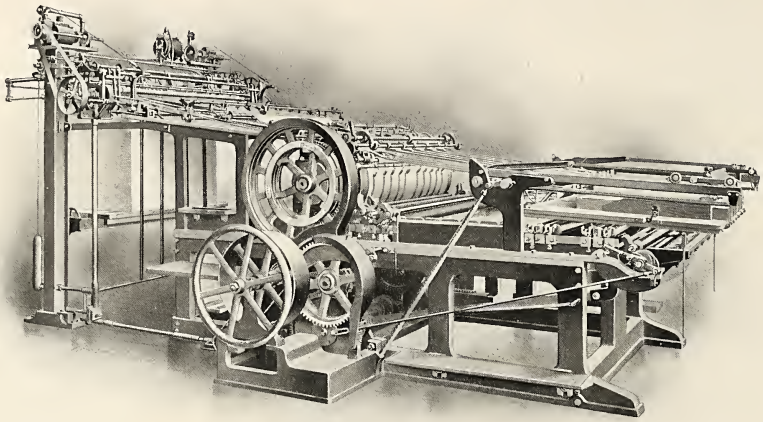
JOHN THOMSON PRESS COMPANY

NOTT AND EAST AVENUES, LONG ISLAND CITY, NEW YORK

Boston Office: 176 Federal Street — Chicago Office: 1701 Fisher Building

¶ Designers and Builders of "Colt's Armory" Platen Presses, in distinct adaptations, for Printing, Embossing, Stamping and Paper-box Cutting and Scoring.

Fuller Folders *and* Feeders

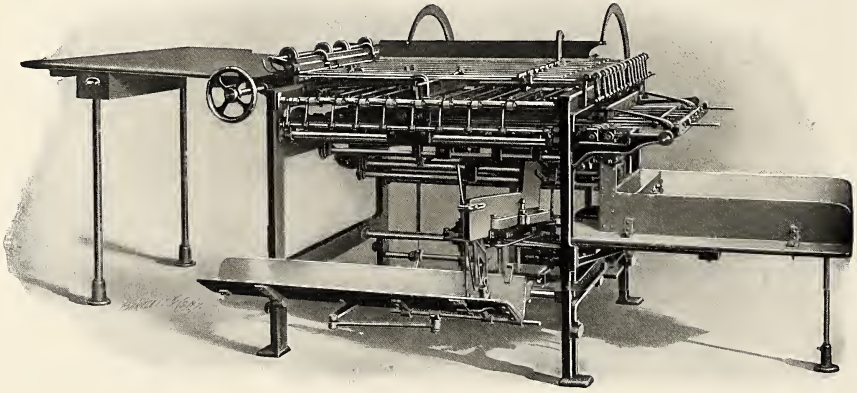


FULLER AUTOMATIC FEEDER FOR PRINTING PRESS

We guarantee an increase in production of ten to twenty-five per cent over hand feeding, absolutely perfect register and a saving in wastage of paper.

We make Automatic Feeders for all kinds of machines designed to handle paper in sheets.

THOUSANDS IN SUCCESSFUL OPERATION.



FULLER COMBINATION JOBBING FOLDER

Handles sheets from 12 inches by 16 inches to 38 inches by 50 inches in any weight of paper without wrinkling or buckling. Folds and delivers 8, 12, 16, 24 and 32 pages. Book or Periodical Imposition. Also long 16's, 24's and 32's two or more "on."

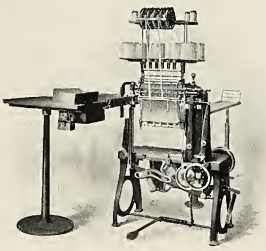
Fisher Building
CHICAGO

E. C. FULLER COMPANY

28 READE STREET
NEW YORK

FACTORY
BROOKLYN, N. Y.

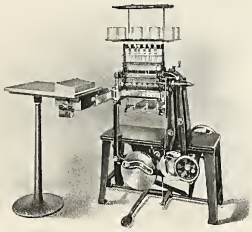
Smyth Manufacturing Company's Specialties



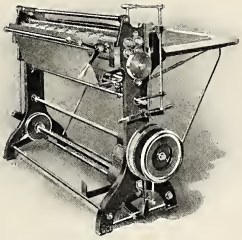
No. 3 Sewing Machine



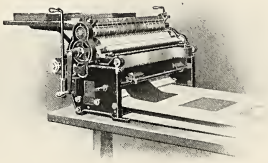
No. 4 Sewing Machine



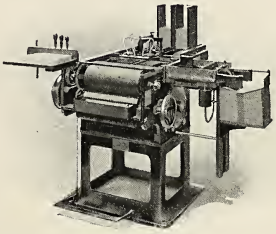
No. 7 Sewing Machine



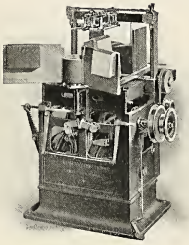
Cloth-cutting Machine



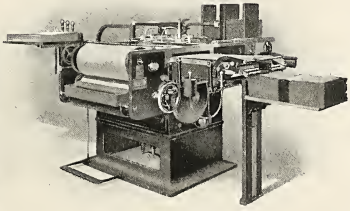
Gluing Machine



No. 1 Case Machine



Casing-in Machine



No. 2 Case Machine

THE **best constructed,** the **most satisfactory** and the **most profitable** machines for the purposes for which they are designed.

Write for descriptive catalogue

E. C. FULLER COMPANY

SOLE SELLING AGENT

FISHER BUILDING, CHICAGO 28 READE STREET, NEW YORK

New Machines and Appliances

Recently perfected by the

F. Wesel Manufacturing Company

Power Attachments for the Wesel Automatic Proof Presses

The printing trade will be interested to know that electric power and attachments have now been added to the Herald Proof Press and also the Self Feeding and Inking Proof Press, thus making them as nearly automatic as possible and greatly increasing their already large capacity.

Straight-Line Attachment to the Wesel Radial-Arm Routing Machine

This attachment enables straight lines to be cut in the work for a length of sixteen inches in a longitudinal direction. This is a desirable feature in the routing and finishing of Photo-Engravers' plates. The attachment can be instantly thrown in and out of gear.

Slug-Cutting Attachment No. 3

Designed to facilitate the handling of Linotype matter on our Printers' Saw Table. The most improved and useful device ever built for this purpose. It meets every demand of both newspaper and job offices.

Electrotype-Beveling Machine (See Illustration)

For beveling all four sides of curved electrotype plates for Automatic Cylinder Presses. One machine will accommodate any number of diameters by the addition of segments and cylinders.

Diagonal Shear-Cut Shaving Machine

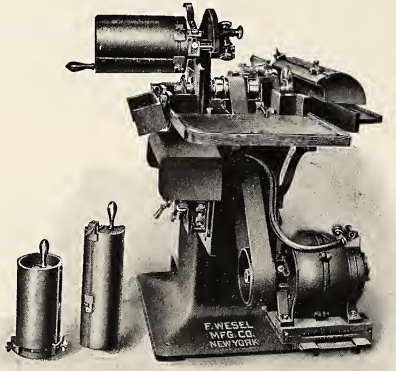
For plate-high work. Shaves absolutely perfect. It is coming into extensive use in book-publishing houses for shaving all plates to a standard, uniform thickness. Operates upon an entirely new principle, and is a great success from the standpoint of either the Electrotyper or Printer.

Uniform-Locking Curved Casting-Box

For casting Harris Press Stereotypes of a uniform thickness throughout, with bevels on three sides, and of any size up to two-thirds of a circle—something never heretofore accomplished. These plates do not require shaving or beveling, and owners of Harris Presses may now cast their own plates at a great saving over the cost of curved electros.

Tail Cutter for Unlimited Diameters of Harris Press Stereotypes

For cutting off the superfluous metal from the fourth side of plates cast in our Uniform-Locking Casting Boxes, and beveling at the same time. All diameters can be accommodated simply by adding segments.



Beveler for Unlimited Diameters of Curved Electrotypes for Automatic Cylinder Presses

Interlocking Steel Furniture for Box Makers

Contains spring-controlled plungers for forcing the stock away from the cutting or scoring rule, without the aid of friskets or any makeshift whatever. A great saving in lock-up and presswork.

CIRCULARS OF ABOVE MACHINES AND DEVICES SENT UPON REQUEST

We are Complete Outfitters to the Printer, Electrotyper, Stereotyper and Photo-Engraver

F. WESEL MANUFACTURING CO.

NEW YORK, 10 Spruce Street
PHILADELPHIA, 124 South Eighth Street
CHICAGO, 150-152 Franklin Street

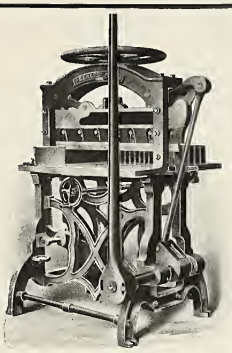
Main Office and Factory
70-80 Cranberry St., Borough of Brooklyn
NEW YORK CITY

The Peerless Job Press



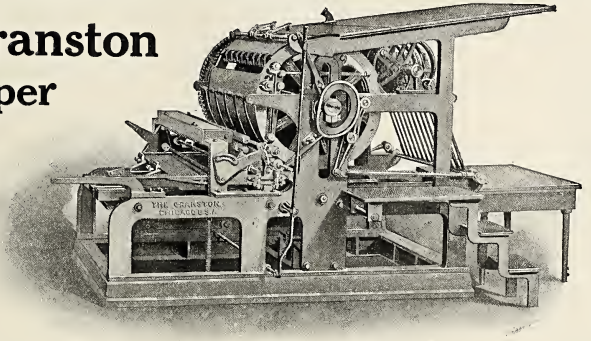
Easiest to make ready.
Strongest disc press.
Chase instantly and securely fastened by an automatic chase-hook.
Chase accurately fitted—inserted either side up.
Spring-steel grippers—depressible.
All the impression screws *in sight* and *easy to get at.*
"Dead-dwell" impression—no thumping and pounding.
Compound toggle movement delivers the impression in the center as well as on the edges.
Only disc press strong enough for embossing and similar work.
Peerless fountain—only four screws; rapid control, accurate feed, quick wash-up.
At it twenty-five years. Six sizes. Send for booklet.

The Peerless Gem Lever Cutter



Superior in every detail—compare it with others.
Superior leverage, cutting easily and returning easily, because of the perfect counter-balance, within the frame, out of way and saving floor space.
Not a back-breaking cutter.
Frame strong, heavy, doubly braced.
Knife-bar and knife thicker and deeper than other makes, insuring a true cut and long life, and avoiding deflection under strain.
Best construction—best material—best finish.
Four sizes—23, 25, 30 and 32 inches.
Over 8,500 Peerless machines in constant use.
Send for booklet.

The Cranston Newspaper Presses



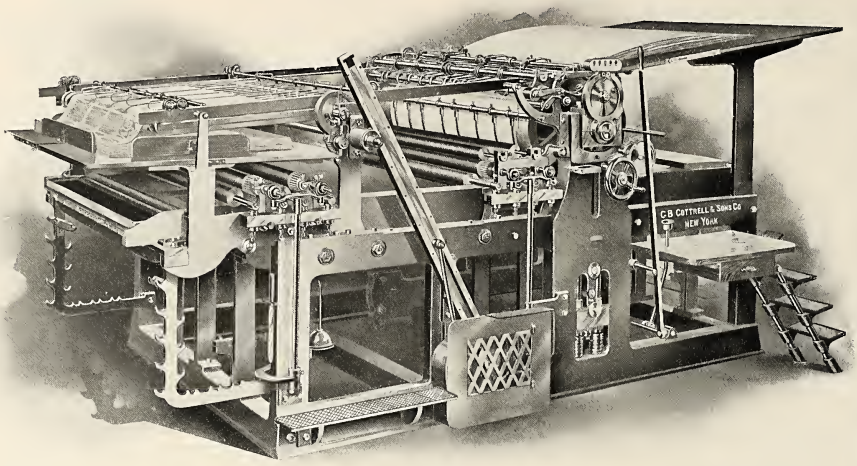
For the general run of newspaper and commercial work will meet all demands, the two sizes taking a seven-column folio and a six-column quarto without crowding. The material used and its careful construction render it capable of the highest speed consistent with good printing.
Solid, box-frame castings give the needed resistance for heavy forms. The press has air-springs, with extra long cylinders and adjustable plungers, tapeless delivery—wheels adjustable to size of sheet; simplex slider motion—the best; brake, rack-guard, iron feeder's-stand, adjustable feed guides, large form rollers, deep fountain, register-rack and segment, and rack and cam distribution.
The gripper motion is smooth and noiseless.
The tracks have solid ends with oil reservoirs; the track-steels heavy and dovetailed into the casting. The track is supported and held firmly in place under the impression by two heavy girt studs, resting directly on the girt.
The heavily webbed bed has steel runners and is also supported under the impression by two adjustable truck rollers.
Cast-steel driving gear and shoes are carefully cut and accurately fitted.
Studs and thimbles throughout are steel, hardened where necessary.
The universal shafts are drop-forged steel.
A recent improvement makes it possible to easily and quickly remove or replace the form rollers.
The press is furnished with hard packing, wrenches, two sets of roller cores—one cast—and a complete countershaft.

The Cranston *Improved* Newspaper Press

Has the features above mentioned, and in addition a long register rack and segment—and a back-up motion, so arranged that it can be operated by foot pedal, when the belt is on the loose pulley and the press backed up at quarter speed.
This back-up should not be confused with the old-style back-up formerly used.
The new motion is an excellent feature, universally approved.
The foregoing are but a few of the good points of these presses.
We ask you to examine them and see for yourself.

For sale at all houses of the American Type Founders Co., also Dodson's Printers' Supply Co., Atlanta, Ga.

PEERLESS PRINTING PRESS CO., 70 Jackson Street, PALMYRA, N. Y., U. S. A.
Lieber's and A-B-C 5th Edition Codes



THE COTTRELL

High Speed Two-Revolution Press

Specially designed for the exacting demands of three-color printing where perfect register is absolutely necessary. New features have been added for facilitating the production of the finest work.

The press is furnished with our patent Convertible Sheet Delivery, which can be set to deliver the sheets printed side up, or it can be changed to the regular fly delivery in five minutes' time. The convertible delivery is operated by a variable-speed crank motion, which dispenses with the fly spring, thus saving the power required to compress the spring, at the same time making the motion more simple and convenient.

A LINE OR TWO ABOUT DISTRIBUTION

All form and table rollers are geared and driven by the operation of the press, thus giving a positive and accurately timed motion to them.

The vibrators over the plate rollers and the inner form rollers are vibrated in opposite directions, cutting and spreading the ink perfectly and giving 25 to 33 per cent better distribution than any other press in the market. All form and table rollers are interchangeable and are easily removed.

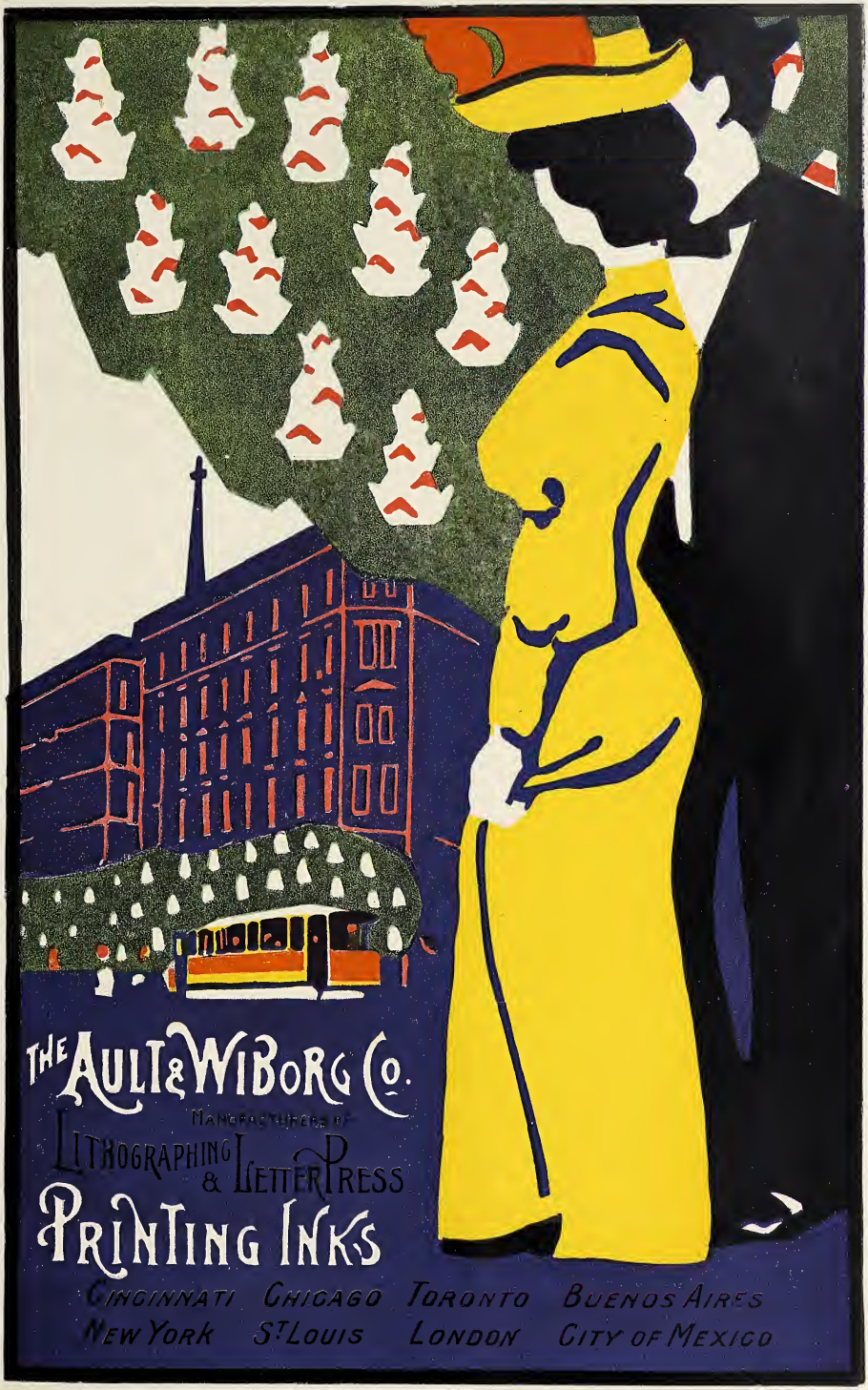
C. B. COTTRELL & SONS COMPANY

NEW YORK, N. Y. WESTERLY, R. I. CHICAGO, ILL.

U. S. A.

Representative in Mexico:
U. S. PAPER EXPORT ASSOCIATION
1a Revillagigedo No. 1
Mexico City

Representative in Cuba:
HOURCADE CREWS Y CA.
Muralla 39, Havana


THE AULT & WIBORG CO.
MANUFACTURERS OF
LITHOGRAPHING & LETTER PRESS
PRINTING INKS
CINCINNATI CHICAGO TORONTO BUENOS AIRES
NEW YORK ST. LOUIS LONDON CITY OF MEXICO

PARALOID (Patented.) The New Fluid that PREVENTS OFFSETTING

SUCCESSFULLY used by many leading printers. Especially adapted for Rotary Presses, where it saves Off-Set Roll and increases the output of presses from ten to twenty per cent. Write us for detailed information as to its cost, application, etc.

Manufactured Only by : : : The Ault & Wiborg Co. CINCINNATI, OHIO (Sole Licensees for America)

NO-WASH-UP A Boon to Lithographers and Letterpress Printers

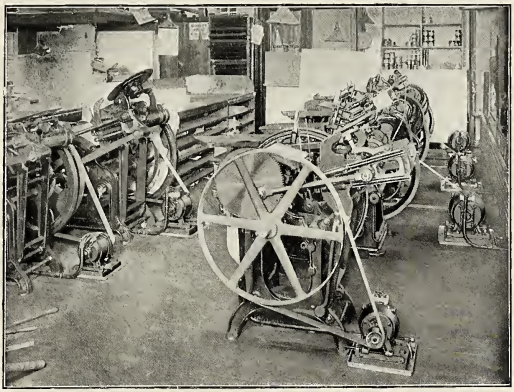
BY ITS USE the troublesome, tiresome and expensive operation of washing-up at the end of a day's run is obviated, the press being in perfect condition for starting the next day. The greatest saver of materials and time yet introduced into a printing office. Write us for sample and give it a trial, WHICH WILL CONVINCE YOU.

In 75 cent and $1.50 cans.

Manufactured Only by : : : The Ault & Wiborg Co. CINCINNATI, OHIO

Sprague Electric Company

MANUFACTURERS



Don't Kick the Press

Get a SPRAGUE Electric Motor

and save your strength. A little printer running a job press by foot power uses up his strength, and so unfits himself for greater opportunities. The little printer with a Sprague Electric Motor to run his press, saves his strength and time, and is better fitted to reach out after larger business. Why not begin now to grow? Better work can be turned out by electric power than by either steam or foot power, whether the plant is large or small. Electric equipments for printing-offices are illustrated in our Bulletin No. 2214, a copy of which will be sent to any interested printer upon request.

General Offices: 527-531 West Thirty-fourth Street, New York City

BRANCH OFFICES IN PRINCIPAL CITIES

ACME WIRE STAPLE BINDERS

Acme Binder No. 6

Patented in Europe and the United States.

"The Best Automatic Wire-Stapling Devices on the market"

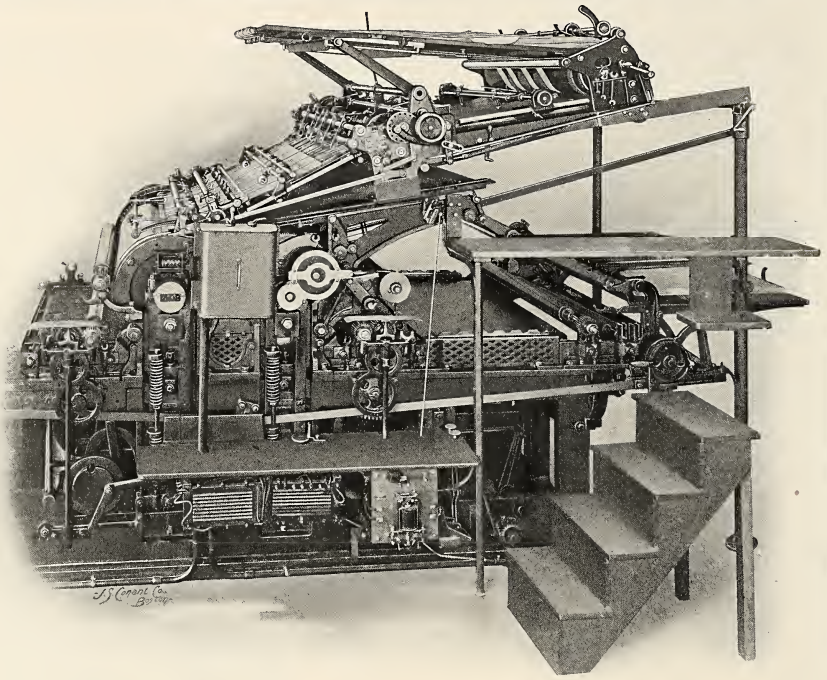
Operated by hand or foot power.
Equipped with Automatic Clinching and Anti-clogging Devices.
Full information promptly furnished on application.

ACME STAPLE CO. Ltd.

500 N. 12th St., PHILADELPHIA



Cross Continuous Feeder



THE FIRST STEP in automatic paper-feeding is the positive separation of all grades of paper—one—sheet—at—a—time.

¶ Watch the Cross Continuous Feeder separate positively one sheet at a time, any kind of stock from a news or rough cover to the highest grade of coated, enameled or glazed. Watch the principle—the method of separation—no buckling, no calipers, no boards, no wedges—just a mechanical adaptation of hand separation adjustable to any part of the sheet. Watch and you will realize why its users call the CROSS CONTINUOUS FEEDER the NEVER-STOP FEEDER.

CROSS PAPER FEEDER CO.

Main Office, 185 Summer Street, BOSTON
New York Office, ... 38 Park Row

MANUFACTURERS OF PAPER-FEEDING MACHINERY EXCLUSIVELY

More Monitor Machinery

was bought by printers and bookbinders of San Francisco after the disaster than all of other makes of bookbinders' machinery combined.

Where Proprietors

Keep Books on Each Machine



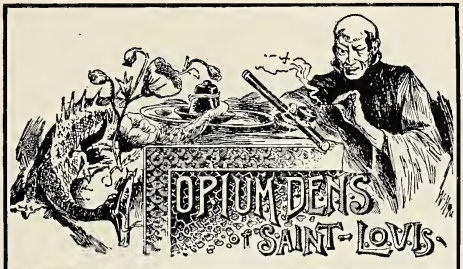
separately — its product, expense of repair, and net earning capacity — that is where the Monitor Machinery displaces all other makes.

MONITOR PAGING AND NUMBERING MACHINE
One of the Specialties

Latham Machinery Company

FULL LINE BOOKBINDERS' MACHINERY

NEW YORK STORE 8 Reade Street — **197 South Canal Street, CHICAGO, ILLINOIS, U.S.A.** — **BOSTON STORE** 220 Devonshire Street



Illustrate Your Paper With Chalk Plates

It is the cheapest known method; can be used by the large paper to advantage, and is within reach of the smallest.
Note the low prices of complete outfits.

5x8 inches at $42.00
8x10 inches at $55.00

These outfits can be used for ordinary stereotyping as well as chalk-plate work, and enable the printer to avoid wear on his type by stereotyping his ads. and other type forms, and save the expense of electrotyping.
Complete outfits for Rubber Stamp making.

HOKE ENGRAVING PLATE CO.,
62 and 64 Ludgate Hill, London E. C., England — **ST. LOUIS**



EXPANSION

FALL ACTIVITIES have now begun, and the year promises to be a record-breaker for business. Are you branching out?

WE ARE still expanding. That is characteristic of our progressiveness. Only a few weeks ago we sent an experienced paper representative to South America. He is headed for Buenos Ayres, there to establish another—our seventh—foreign office.

YOU MAY be interested to learn that we were recently appointed sole export agents for the Linotype and Monoline machines in Australia.

WHAT WE are doing for others, we can accomplish for you. Write to us if you desire a foreign market for anything connected with the paper and printing trades. If you wish to export, the present time affords a splendid opportunity.

PARSONS BROTHERS

Paper Merchants and Exporters

257 BROADWAY, . NEW YORK CITY

Cable Address—"Parsobros," New York.

LONDON — WELLINGTON — HAVANA
SYDNEY — CAPE TOWN — MEXICO CITY

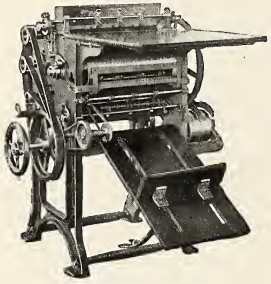
The Fuchs & Lang Mfg. Co.

MACHINERY AND SUPPLIES FOR
LITHOGRAPHERS AND PRINTERS

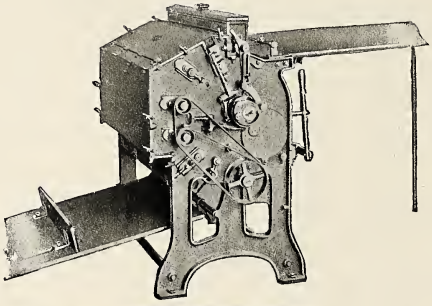
29 WARREN STREET, NEW YORK
328 DEARBORN STREET, CHICAGO
150 N. FOURTH ST., PHILADELPHIA
44 HIGH STREET, BOSTON, MASS.
Factory and Machine Works
RUTHERFORD, N.J.

Owners of
EMMERICH & VONDERLEHR
MACHINERY

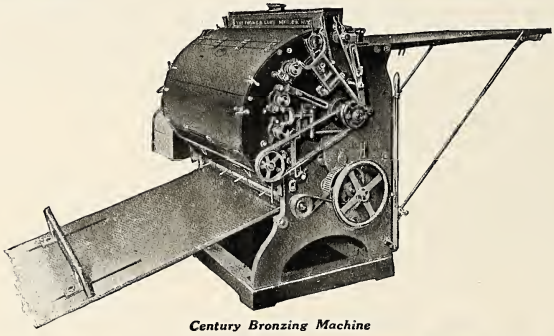
BRONZING MACHINES



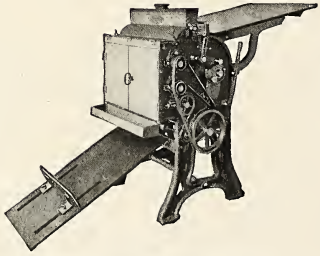
No. 2 Bronzing Machine



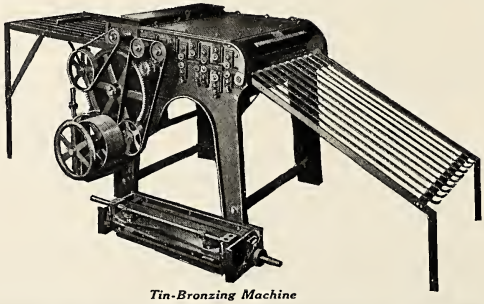
Standard Bronzing Machine



Century Bronzing Machine

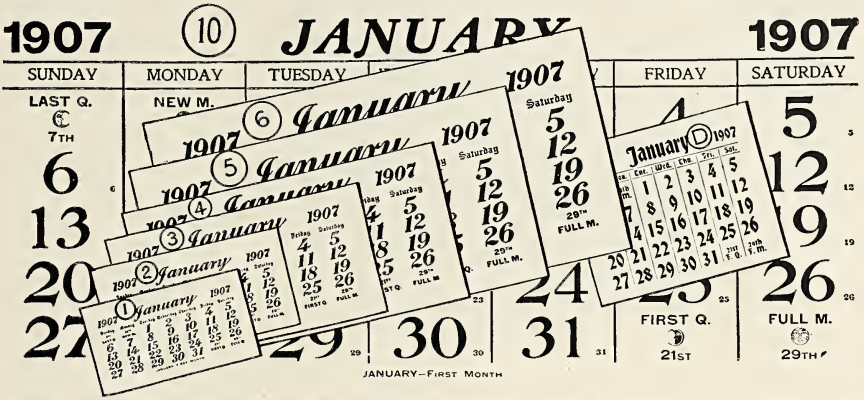


No. 3 and 4 Bronzing Machine



Tin-Bronzing Machine

Sullivan's Calendar Pads for 1907

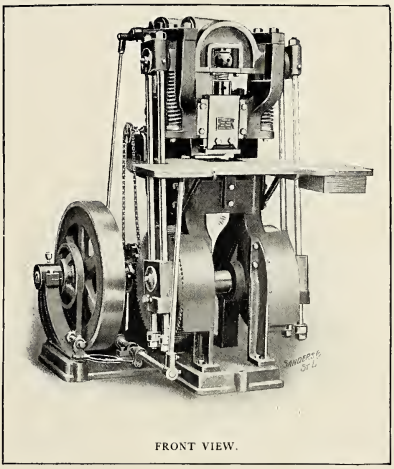


FORTY SIZES AND STYLES IN STOCK READY FOR IMMEDIATE SHIPMENT.

We guarantee pads correctly gathered, uniform color, uniform margins, perfect printing, full count, and with our reinforced method of gumming, pads absolutely free from breakage. Sample-book and prices sent upon request.

THE SULLIVAN PRINTING WORKS CO.

COURT STREET AND BROADWAY, CINCINNATI, OHIO.



FRONT VIEW.

THE

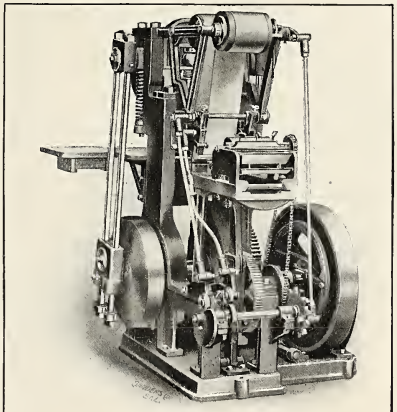
Curtis Power Embossing Press

Manufactured and for sale by

The Modern Machine Company

214 Spruce Street, St. Louis, Mo.

"The Press Without a Peer"

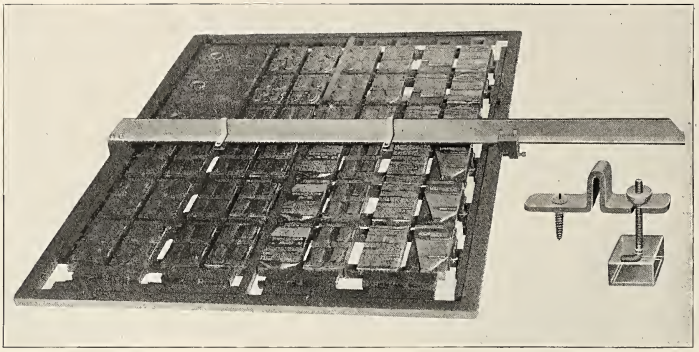


REAR VIEW.

Mr. Embosser: We can only hope to attract your attention through this medium. A description of the Curtis Power Embossing Press is contained in our catalogue, and it is yours for the asking. Genuine merit is responsible for the success of the Curtis. You need one in your plant.

A Temporary Adjustable Cross-Bar

Price $10
Net
F. O. B.
Chicago



Adjustable Saddle

For supporting a sectional base or wood furniture form.

PATENT APPLIED FOR

IF this Bar saves locking up one form on the bed of the press, it pays for itself.

IF it saves springing your chase in a case where you have to remove the regular cross-bar, it pays for itself.

IF it saves "pieing" one form, it has paid for itself many times.

IT is a profitable tool for both the composing-room and the pressroom.

IT IS FOR SALE BY

GILBERT HARRIS & Co.

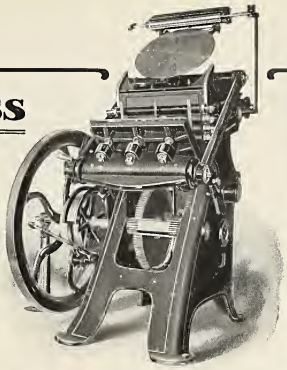
OWNERS AND LICENSORS.

PATENT METALLIC OVERLAYS

158~164
EAST HARRISON STREET,

Chicago, Ill.

New Perfected Prouty Press



From Florida we get:

Replying to your letter of May 26 (a circular letter), would say that we are now operating two of your Perfected Prouty Presses, which are giving very good satisfaction. The writer has had experience with this machine for nearly twenty years and knows that for general work they can not be excelled, especially in the sizes up to 10 x 15.

One of the best rated printers in "Frisco," after using the press, and on being cleaned out by the "Big Fire," writes:

We take pleasure in handing you, through the "Hadwen Swain Mfg. Co.," order for Prouty Presses as follows: Three No. 2, 9x13; five No. 3, 10x15; two No. 4, 12x18.

MANUFACTURED ONLY BY

Boston Printing Press & Machinery Co.

185 Summer Street, ... BOSTON, MASS.



SELLING OUT

Bargains in Printing Machinery

all the time. I give you the best rebuilt machinery in the land at prices to suit

807 — 2-revolution Century, 43x56, 4 rollers, front delivery.
825 — Potter Drum, 27x35, 4 rollers, tapeless delivery.
843 — 2-revolution Campbell, 37x52, 4 rollers, front delivery.
845 — 2-revolution Cottrell, 43x56, 4 rollers, front delivery.
856 — 2-revolution Campbell, 48x64, 4 rollers, front delivery.
859 — Campbell Oscillator, 28x32, 4 rollers, front delivery.
866 — 2-revolution Campbell, 26x36, 2 rollers, rear delivery.
869 — 2-revolution Cottrell, 43x60, 4 rollers, rear delivery.
872 — Hoe Drum, 33x47, 2 rollers, tapeless, 6 qto.
873 — Cottrell Stop, 33x48, 4 rollers, front delivery.
880 — Babcock Drum, 22x26, 2 rollers, tapeless delivery.
882 — 2-revolution Campbell, 41x56, 4 rollers, front delivery.
883 — 2-revolution Huber, 46x60, 4 rollers, front delivery.
884 — 37x52 Hoe Drum, 7-col. quarto, tapeless.
885 — 25x35 Potter Drum, 6-col. folio, tapeless.
886 — 28x41 Hoe Drum, 7-col. folio, tapeless.
887 — 28x42 Cottrell Drum, 8-col. folio, tapeless.
888 — 28x42 Cottrell Drum, tapeless, table distribution.
6-col. Vaughn Ideal hand cylinder press, inking apparatus.
13x19 Peerless job press, long fountain.
3 h. p. Norman gasoline engine.
Coming in — No. 3 Miehle, 32x44.

My stock constantly changes. If you don't see your requirements, ask me for it. Reference given on every press I have sold.

BRONSON'S PRINTERS MACHINERY

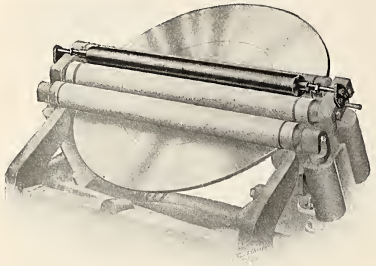
H. BRONSON, Proprietor
54 N. Clinton St., CHICAGO, ILL.
Telephone, Main 224 — Four doors north of W. Lake St.

A "BIG STICK" FOR PRINTERS

EVERY printing house with a reputation for fine work ought to have our sample-book of **EMBOSSED AND STEEL-PLATE STATIONERY.** This book shows more than a hundred different styles of headings, all the different papers, envelopes, etc., carried in stock, and has the selling price of each (engraving, presswork and stock) itemized and printed in the book. The price-list covers every size and any quantity up to a hundred thousand. These books are expensive, and we are not distributing them indiscriminately, but we shall be glad to send a copy free of charge to any reliable firm that has business to place, provided they obligate themselves to return if requested.

Farrauer & Co. INC.

Steel and Copper Plate Engravers for the Trade Only. **LOUISVILLE, KENTUCKY.**



The Ideal Vibrator

Is just the thing needed to improve ink distribution on platen presses. It is operated by and travels with the form rollers, carrying the ink constantly from one roller to the other; avoids streaking, does away with double rolling, one rolling giving better results than three rollings without it.

PRICES FOR GORDON AND PEERLESS PRESSES

8 x 12	$13.00	12 x 18	$17.00
9 x 13	13.00	13 x 19	17.00
10 x 15	15.00	14 x 20	20.00
11 x 16	15.00	14½ x 22	20.00

ALL DEALERS SELL THEM

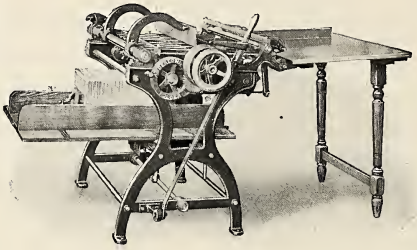
MADE ONLY BY

H. B. ROUSE & CO.

61-63 Ward Street CHICAGO, U. S. A.

Drop-roller Folder

ONE FOLD



SPEED **6000** PER HOUR

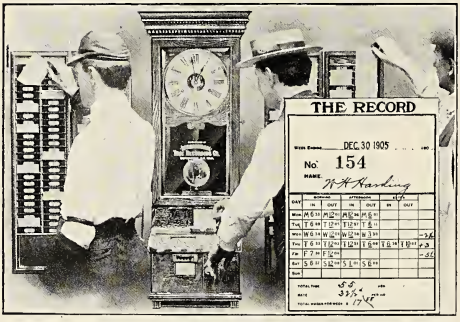
MADE BY

C. F. ANDERSON & CO.

394-398 SOUTH CLARK STREET

CHICAGO

Labor Cost Cut 10%



BY AID OF

International Time Recorders

We Did It :: So Have Others :: So Can You

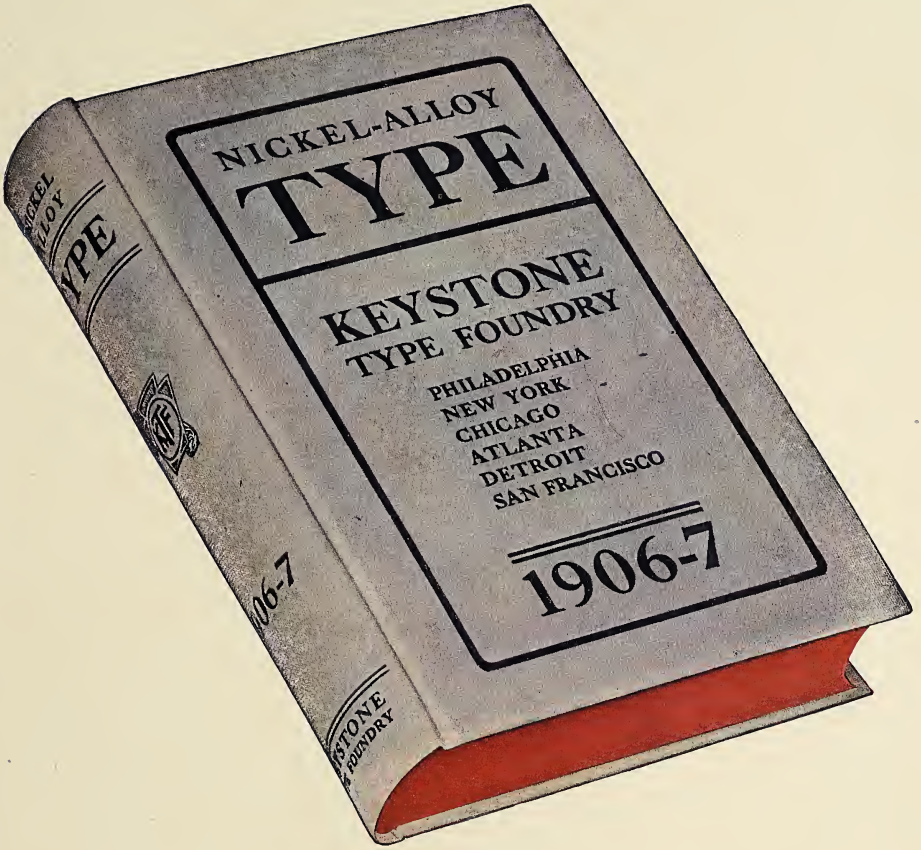
Our Booklets, "Cost Cuts that Swell Profits" and "Ten Years' Experience in Automatic Cost Keeping," tell how. May we send you a free copy of each?

We have equipped offices where only five are employed, and also great manufacturing establishments employing 10,000 men. We can equip your business so economically that within a year you will have saved more than the price of the equipment.

WRITE FOR THE BOOKLET THAT SHOWS HOW.

International Time Recording Co.

199 Water St., Binghamton, N. Y.



THE BOOK OF THE HOUR

Between these Covers are the best examples
of the Designers' Art and the Artisans' Skill

1906-7 Abridged Specimen Book

IN PREPARING OUR new book now being sent out, and reproduced on the reverse of this sheet, we have held to the handy, popular size and appearance of our previous books. Its 624 pages have been carefully compiled and arranged, bringing it up to date, with the latest and best of everything in Type, Furniture and Material. It contains much general and selling information of value to purchasers, and shows many new faces made on Universal Lining System, which embodies all of the best time, labor and money-saving features of such systems.

All Keystone Type is cast of our Nickel-Alloy Metal, which is hard and tough, of close texture, susceptible of great tension or strain, and recognized superior for printing, stereotyping and electrotyping purposes. Every pound used is mixed in our own Foundry.

Printers, publishers and advertisers will find this book, and the specimens to follow it, of great value in preparing live printed matter; and are invited to deal direct with our Houses at Philadelphia, New York, Chicago, Detroit, Atlanta and San Francisco, or our Selling Agents at Chicago, New Haven, Richmond, Dallas and London, Eng.

Keystone Type Foundry

Set in Caslon Bold with Caslon Bold Initial and 18 Point Black and White Border No. 7

THE

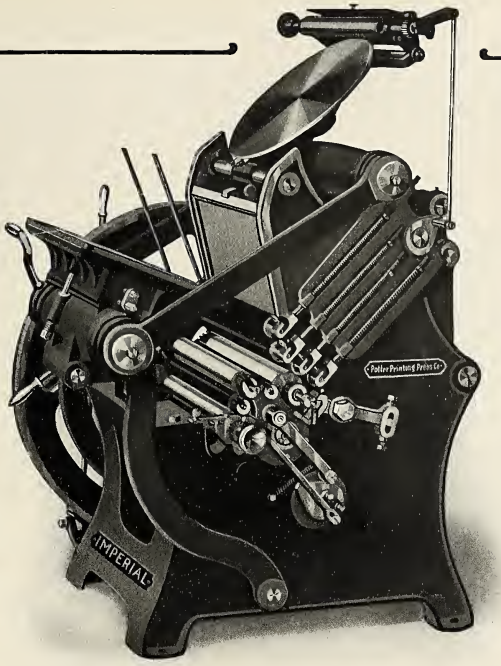
IMPERIAL ART PRESS

THE LATEST AND BEST

Adapted for highest grade of work.

Contains features found in no other job press.

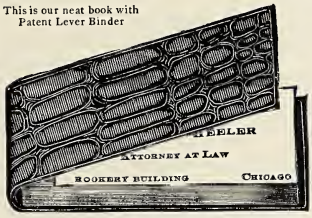
Two Sizes: 10 x 15 and 14 x 22.



Imperial Art Press Company

77 Summer St., Boston, Mass., U. S. A.

This is our neat book with Patent Lever Binder



This card case is made up in a variety of leathers and is equipped with our Patent Lever Binder, in which a new lot of cards is quickly inserted when empty

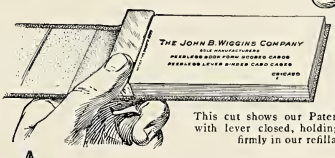
Even If You Are in the Stationery Business, Do Not Stand Still

SHOW your customers that you are advancing in their interest. Explain to them the many merits of the PEERLESS BOOK FORM CARD, and you can be sure of their future patronage. It is the card that is BOUND TO ATTRACT, and WITHOUT BINDING, too, because with our new PATENT LEVER BINDER CASE the cards are held securely in clamp—NO BINDING NECESSARY. The cards are scored, and when detached from stub ALL EDGES ARE STRAIGHT. NO PERFORATION WHATEVER.

The majority of men desire to have THE BEST THERE IS, and from the increasing demand it is being proven that the PEERLESS BOOK FORM CARD IS THE BEST. If you can furnish these cards, you get the sale; if not, your customer will find A STATIONER WHO DOES.

Just examine these drawings with care and our system will appeal to you INSTANTLY





This cut shows our Patent Lever Binder with lever closed, holding pack of cards firmly in our refillable case

No More Work—Much More Satisfaction

DEALERS in all parts of the country are sending to us for information regarding these BOOK FORM CARDS. Their customers are demanding them, and the DEALER must be prepared.

WE SEND YOU THE CARDS IN BLANK FORM, with the LEVER BINDER CASES. You do the printing and insert cards in cases WITHOUT BINDING—handling these cards with as little trouble as the way you are now doing.

THE LEVER BINDER securely clasps the cards in case, and when detached all edges are perfect.

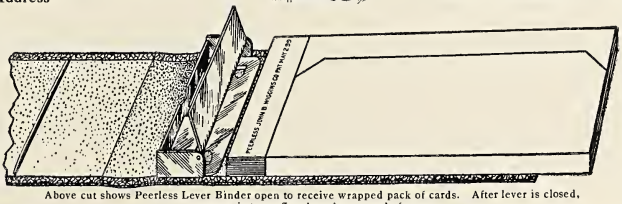
We Have Samples and Price-lists All Ready to Send You Upon Receipt of Your Address

The John B. Wiggins Company

Sole Manufacturers

Engravers, Plate Printers and Die Embossers for the Trade

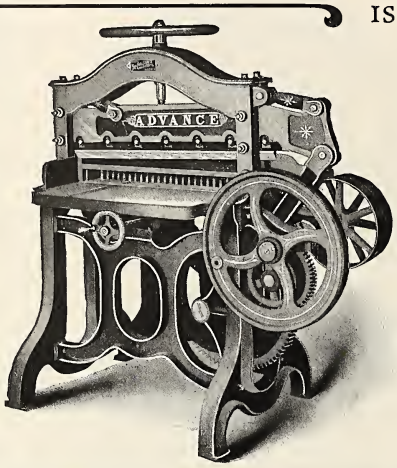
21-23 E. Adams Street, CHICAGO



Above cut shows Peerless Lever Binder open to receive wrapped pack of cards. After lever is closed, wrapper is torn off and cards are ready for use

WORKING CAPACITY

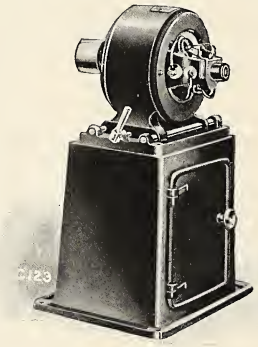
IS THE TEST



THE ADVANCE POWER PAPER CUTTER, made in 30 and 33 inches, will stand the severest test and no cutter has a greater working capacity. Our patent Side Frame Protector prevents shavings from jamming between knife and side frame. Prevents breaks. Has gauges both sides, both back and front, distributing the wear over the whole length of the knife; less grinding and prolongs the life of the knife. The frame is very heavy; all cut gears; the clutch, clutch pinion and intermediate pinion are cut out of solid steel. Costs no more than other makes.

SOLD BY DEALERS EVERYWHERE	Manufactured by The CHALLENGE— MACHINERY CO., Grand Haven, Mich., U.S.A.	SALESROOM AND WAREHOUSE: 127-129 Market St., CHICAGO

"THE STANDARD" MOTORS



"The Standard" D.C. Motors

are now driving printing machinery of every kind; because they are adaptable to all positions and give universally good results.

Let us give you the benefit of our experience in installing motor drives for your machinery.

We can furnish you with illustrations showing the application of "Standard" Motors to almost any printing machine.

We build the best Linotype motor yet designed

THE ROBBINS & MYERS COMPANY

Main Office and Works, SPRINGFIELD, OHIO

NEW YORK, 66 Cortlandt Street
BALTIMORE, 407 American Building
PHILADELPHIA, 730 Witherspoon Building
CHICAGO, 1107 Fisher Building

BRONZING MACHINES

FOR LITHOGRAPHERS AND PRINTERS

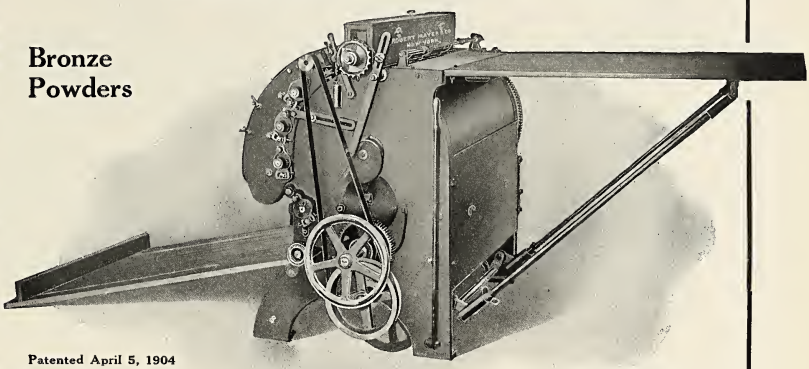
GUARANTEED IN EVERY RESPECT

OTHER specialties manufactured and imported by us:

Reducing Machines,
Stone-grinding Machines,
Ruling Machines,
Parks' Renowned Litho. Hand Presses,
Steel Rules and Straight-edges,
Lithographic Inks,
Lithographic Stones and Supplies.

¶ Sole agents for the United States and Canada for the genuine Columbia Transfer Paper — none genuine without the water-mark on every sheet.

Bronze Powders



Patented April 5, 1904
Patented May 30, 1905
Patented April 7, 1906
Other patents pending.

We do Repairing

MANUFACTURED BY

ROBERT MAYER & CO. 19 EAST 21ST STREET, NEW YORK
Chicago—Factory, Hoboken, N.J.—San Francisco

KEYSTONE CUTTERS

LEAD IN SIMPLICITY

And therefore are the best machines to buy because they have no intricate or complicated parts to get out of order.

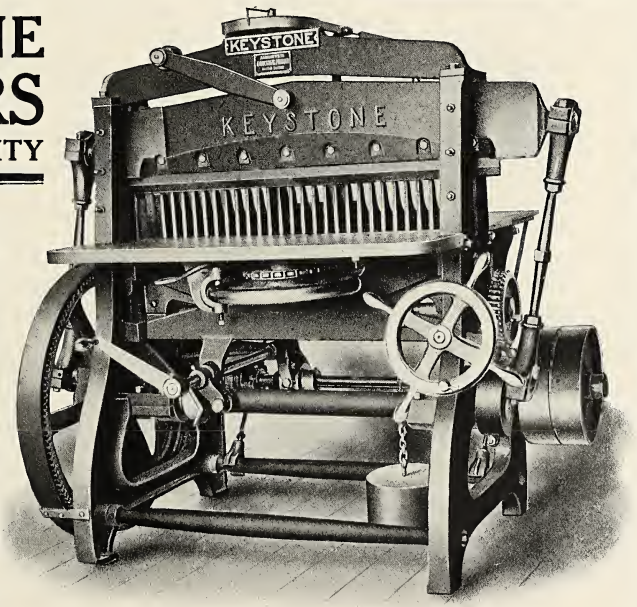
Write to-day and let us tell you more about these machines and what they will do. **We guarantee all our machines to give entire satisfaction,** and what's more they do it every time.

The Standard Machinery Co.
Successors to
GEORGE H. SANBORN & SONS

Builders of BOOKBINDERS' MACHINERY, EMBOSSING PRESSES and PAPER CUTTING MACHINES OF ALL KINDS, DIE CUTTING PRESSES, Etc.

Main Office and Works, MYSTIC, CONN.

CHAS. E. WHEELER, Gen. Mgr. and Treas.



38 and 44 inch Keystone Hand-Clamp Cutter

"It Touches the Spot"

I have found your inks to be remarkably free in working, of brilliant color and good body. Have had a long experience in the trade, both in this country and in England, and have used inks from all the best makers, but, should I need to buy, *shall give you the preference*. You can rely on my placing my orders with your firm as I like your method of business. "It touches the spot."

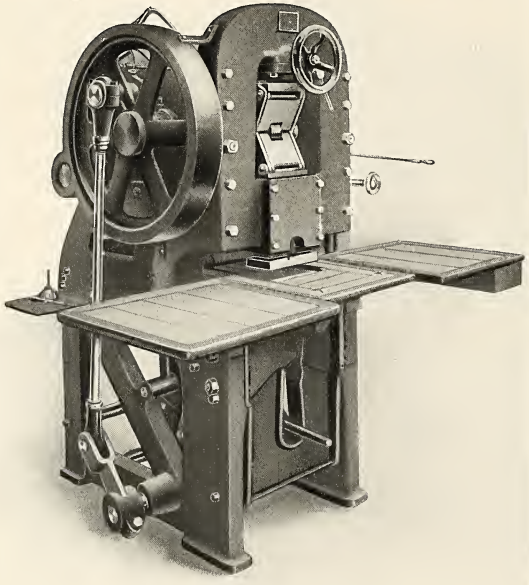
HENRY WHITE, UNION CITY, CONN.

My hardest task in selling ink is to land the first order. That being accomplished, the road seems smooth, as the majority of job-printers who try my inks never fail to continue buying from me, as it is a sort of revelation to them to get such good inks at such low prices. Send for my Sample-book, containing one hundred and twenty-five specimens of my best selling inks. Money back when goods are not found satisfactory.

ADDRESS

PRINTERS INK JONSON

17 Spruce Street, New York

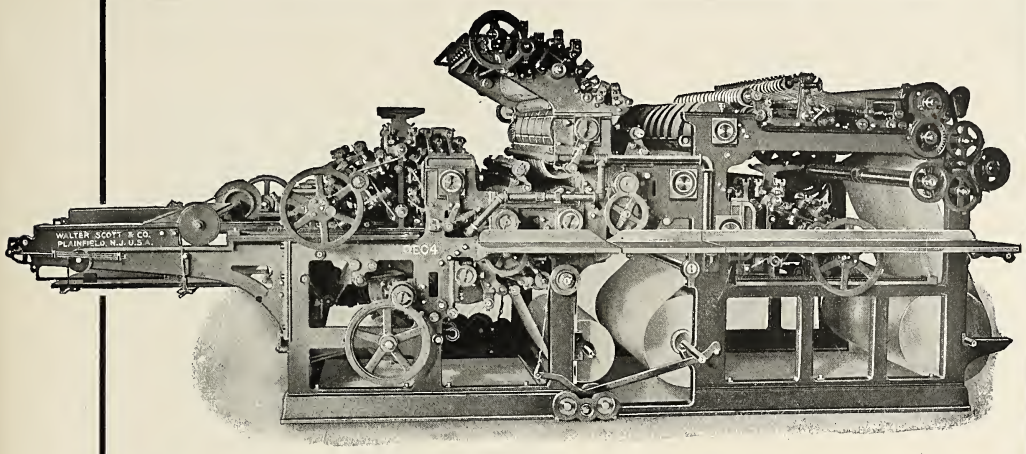


The New Carver Automatic Stamping and Embossing Press

- ¶ It contains the many valuable features which you are looking for.
- ¶ Size, 4½ inches by 9 inches.
- ¶ Specially designed for *Steel Plate Effects* and *Handling of Large Sheets.*
- ¶ It is equally as successful on *Small Dies.*
- ¶ THAT IS NOT ALL.

C. R. Carver Company
N. E. Corner 15th and Lehigh Avenue
Philadelphia

Canadian Agents: MILLER & RICHARD
7 Jordan Street, Toronto, Canada



Scott All-Size Rotaries

THE NEW TELEPHONE DIRECTORY OUT

Edition Filled Twenty-five Freight Cars and Weighed Four Hundred Tons

This morning the employees of the New York Telephone Company began the work of delivering the new summer Telephone Books and collecting the old ones. About 200 men are employed for this task, which takes about four weeks to complete, and means the handling of about 800 tons of paper, since the old books are taken away when the new ones are left. This is done for the protection and convenience of the subscriber, and also to prevent the use of the old directories, which would result in the giving of many wrong numbers, and would be, in consequence, a drag on telephone service.

The new Directory contains the names of over a quarter of a million of New York's most progressive business houses and individuals. Three hundred and sixty-five thousand books will be distributed. Originally the Telephone Book was used only for the purpose of looking up telephone numbers, but at the present time the list of telephone subscribers in New York city is so complete that the Telephone Directory has become the best general directory of New York and vicinity, and is almost absolutely accurate since it is revised and a new issue distributed every four months. An advertisement recently issued by the Telephone Company illustrates graphically the extent to which this feature has grown. It is in the form of a picture showing side by side Mount Everest, the tallest mountain in the world, and a tower of 365,000 telephone books, one on top of another, which makes a column six and three-quarters miles high, towering over a mile above the top of the mountain.

—*N. Y World*, June, 25, 1906.

Print the

GREATER NEW YORK TELEPHONE DIRECTORY

which consists of

650,000 Books (704 Pages)

using over

400 TONS *of* PAPER

Equip Your Plant with

Scott All-Size Rotaries

and work will come to you

SEND FOR OUR ALL-SIZE WEB CATALOGUE

NEW YORK OFFICE, . . 41 Park Row
CHICAGO OFFICE, 1643 Monadnock Block
ST. LOUIS OFFICE, 319 N. Fourth Street
BOSTON OFFICE, . . . 7 Water Street

Cable Address, WALTSCOTT, New York

Walter Scott & Co.

Plainfield, New Jersey, U. S. A.

Telephone, 5868 Spring

Janson & Brotsfold,
Manufacturers of
Broad Silks,
121 Spring St., cor. Greene St.
New York

The Rock Mill, Paterson, N. J.

For the fastidious:

CEROTYPES ARE UNSURPASSED

for artistic stationery, preserving simplicity, yet making an attractive heading or check. Printed on a job or cylinder press, they give results resembling lithographic printing. Write for samples.

FRANK McLEES & BROS., 18 Rose Street, New York.

The Carlton Rotary Perforating Machine

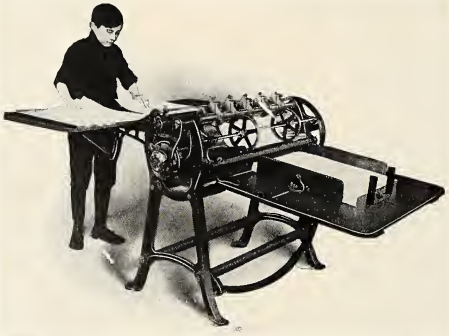
Does everything any other Perforator will do, and does it Quicker and Better.

Does many things no other Perforator can do. Is therefore in a class by itself.

Machine's Speed limited only by **Speed of Operator.** No Swelling or Pounding of Stock.

It does not punch holes through the paper, but makes a clean cut, leaving no burr on under side.

The only machine that will Perforate, Cut or Trim and Score Paper all at One Operation.



Your Special Attention is called to the fact that perforations can be made on the **Carlton Rotary Perforating Machine** *before* being printed, and printing successfully done thereafter.

It makes the Neatest, Cleanest, Smoothest Perforation in the World.

It will Pay for Itself in Time Saved.

No Tapes.
No Rubber Bands.
No Gears.

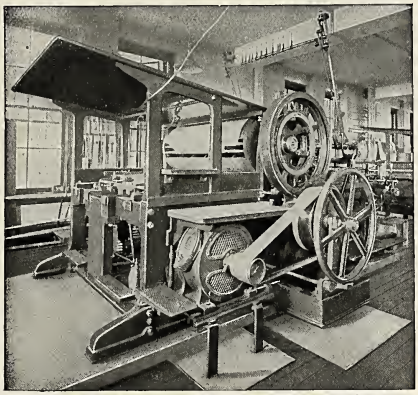
Standard Size—30 ins. wide. Special Sizes made to order.

FOR SALE BY PRINCIPAL DEALERS AND PRINTERS' SUPPLY HOUSES ON BOTH CONTINENTS

Let us send you our descriptive catalogue, showing character of work and fully explaining the Carlton. It's yours for the asking.

NATIONAL PERFORATING MACHINE CO., Kansas City, Mo., U.S.A.
OWNERS AND MANUFACTURERS

Westinghouse Motors



Westinghouse Type S Variable-Speed Motor driving Cylinder Press.

For the Printer

We make a special line of high-grade motors and controllers for operating presses and other machinery in printing establishments.

Write for full particulars.

Westinghouse Electric & Mfg. Co.

Address nearest District office

Atlanta	Buffalo	Cleveland	Detroit	New Orleans	Pittsburg	San Francisco
Baltimore	Chicago	Dallas	Los Angeles	New York	St. Louis	Seattle
Boston	Cincinnati	Denver	Minneapolis	Philadelphia	Salt Lake City	Syracuse

Canada: Canadian Westinghouse Co., Limited, Hamilton, Ontario.
Mexico: G. & O. Braniff & Co., City of Mexico.

THE ROTH EMBOSSED PRINTING PRESS

DIPLOMA AND MEDAL AWARDED, ST. LOUIS WORLD'S FAIR

The only press sold on trial and guaranteed in every respect, including that it can be **successfully** operated by a (young) person of ordinary intelligence.

The most durable, efficient and **reliable press.**

Our improved chuck takes a 5½-inch x 8½-inch die (or 2 or 3 dies), permitting a **greater variety** of work to be done, including 2 and 3 colors, in one impression.

The opening to feed the sheets is 30 inches.

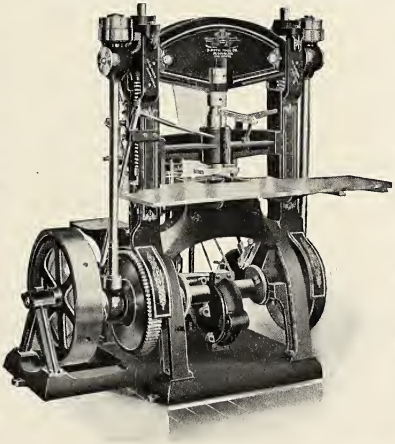
The efficiency and **delicacy** of its **wiping device** is such that the **proper ink** can be used and run in the condition in which it should be run, which is essential in order to produce the highest grade work, and with 43 to 50 lb. wiping paper.

We guarantee a greater number of **impressions** can be run from a non-case-hardened die than on any other make of press.

Our superb inking device is such that the distribution of ink is perfect, in consequence of which the minimum amount of ink is used.

The only press with a universal, self-centering (on any size roll) **paper roll shaft.**

Is a triumph of simplicity.



ROTH'S PATENTS

Contains less than half as many parts as other presses of its kind, yet has every possible attachment for its convenient and successful operation.

Is constructed with a view to longevity, convenience and easiness of operation.

All adjustments can be made while press is running.

Its operation is entirely automatic, and it can be run at 30 per minute on either large or small dies.

Its output is produced at the **lowest possible shop cost.**

The only press that retains its **accurate** and **positive registry** for an indefinite period of years.

Our price includes us furnishing an **instructor** to teach some one how to operate our press, also every detail known to the art of embossed printing.

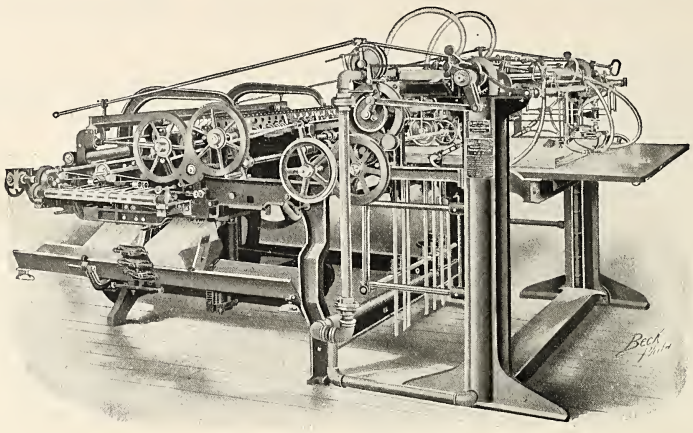
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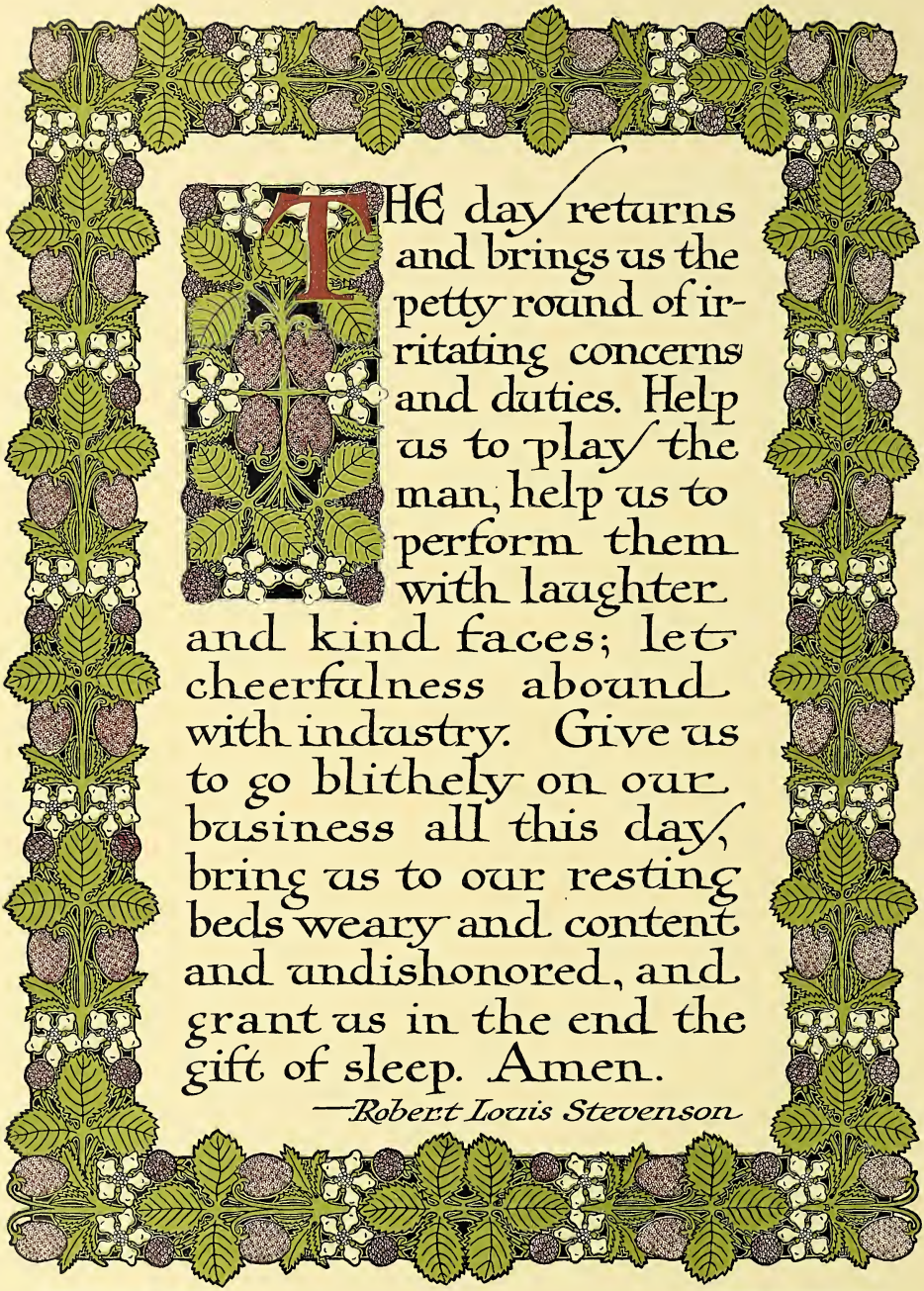
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INDEXED

DISCURSIONS OF A RETIRED PRINTER.

NO. III.— BY QUADRAT.

BRITISH TYPEFOUNDING FOR FOUR HUNDRED YEARS.— ORIGINS OF MUSIC TYPES, QUOTATIONS, METAL FURNITURE, CORED TYPE BODIES, JOB FACES, THE OLD STYLE AND MODERN ROMANS NOW USED, AND CURVED STEREOTYPE PLATES.

THE contents of this article may justify or excuse the title under which it is written, which is intended to afford a sort of letter of marque for literary privateering. While my theme is historical, and I aim to present a consecutive and illuminating history to the reader, I try to avoid dry-as-dust details, and to find what I can of life among the dry bones. In the August Discursion, as I hope the reader remembers, we traveled as far afield as Holland, France and Germany, tracing the progress of matters typographic to the close of the nineteenth century. Early in that century Great Britain disputed the leadership in typemaking, typography and publishing with France, and whatever superiority France may have had on the artistic side, in volume of product Great Britain surpassed all other countries, until toward the close of the century America assumed the leadership both in merit and in output. The typemaking industry was brought to these shores by Britons and founded on British practice and appliances, with the exceptions of a small foundry imported from Holland and established in New York about 1790 by Adam Mappa, and another small foundry imported from France by Benjamin Franklin, both probably, and Mappa's certainly, passing into the possession of Binny & Ronaldson in 1796 when they established the foundry afterwards known as MacKellar, Smiths & Jordan and now is the Philadelphia branch of the American Type Founders Company. Americans, therefore, may be assumed to have a special interest in our British antecedents; but the reader will find much American information interspersed to prevent if possible any involuntary yawns which might betray the writer's tediousness.

The oldest existing English typefoundry is that connected with the venerable and still virile Clarendon Press of the University of Oxford. This foundry was established in 1667. Its product is used exclusively by the University Press. It owns an unequaled collection of matrices for fonts of Oriental and ancient European languages, as well as a number of matrices, acquired by purchase, made by the earlier English and Dutch letterfounders, all of which, with much type cast from them, are reverently preserved. Mr. Horace Hart, the able controller of the University Press, issued a few years ago a specimen book of these ancient fonts from type cast in the original matrices, together with a history of the foundry; among these is shown the type used in printing the famous first folio Shakespeare of 1620. American printers visiting England will do well to journey to this shrine of the printing arts, whose productions, if we except the well-known Oxford bibles, which are printed there, on paper made in mills belonging to the university, are devoted to the advancement of pure learning, unswayed by mercenary considerations. There are two departments, the "bible-side" and the "learned-side," and in some old-time period of jealousy each adopted a different height of type, and this difference still exists, neither agreeing with the English standard height-to-paper.

Next to Oxford, the Caslon is the oldest foundry, established by Caslon I. in 1720, whose ability as a punchcutter first gave England fame in

letterfounding. When Caslon started, the leading and only commercial typefoundry was that of John James, who, with Thomas, his father, 1710-1772, had bought out nine competitors — thus farming the first "type trust"— and in these nine plants were included all the surviving matrices produced in England by the pupil and successor of Caxton, Winken de Worde, the first English letter founder (1491-1534) and the first to cast and use music types, and a long line extending to James's time, including Moxon (1659-1683), distinguished as the author of the first treatise on typography in English, in his "Mechanick Exercises," giving a minutely detailed account of the practice and appliances of the whole craft, with woodcuts. Moxon tells us that four thousand letters a day (of at least twelve hours, I suppose) could ordinarily be cast in the hand mold, which, with few changes, was used from the time of Jenson (1471) until the introduction of Bruce's typecasting machine in 1843. The weight of four thousand eight-point Roman types is seven pounds eight ounces. When the hand-mold was used, the types passed through the additional operations of breaking, rubbing, setting and finishing. Now, an automatic typecasting machine casts 8½ pounds of eight-point per hour, delivering the type perfected, ready for inspection and wrapping. In these days of alleged "copper mixed" and "nickel alloy" it is interesting to learn from Moxon that, in 1683, iron, in the shape of stub nails, in the proportion of three pounds to twenty-five pounds of lead, was used with antimony to harden type metal. After the metals had been subjected to great heat for half an hour the metal-men "laid their Ears near the Ground and listening to hear a Bubling in the Pot," which was the sign that the iron had melted, "and now," says Moxon, "according to Custom is Half a Pint of Sack" (from *Sec.* dry, as applied to wine), "mingled with Sallad Oyl, provided for each Workman to Drink, intended for an Antidote against the Poysonous Fumes, and to Revive the Spirits that so Violent a Fire and Hard Labor may have Exhausted." How funny! I hear some one say. Yes; but I, twenty-five years ago, worked for a printer in Boston, now the best known in the nation, who then made it a practice to treat all hands to ice cream every time the thermometer touched 90° F., shutting down for fifteen minutes at 4 o'clock. This was a large order, for there were about sixty women employed, many of whom have been known to absorb more than one "take" of *pistachio*. That's funny, too; but it was good fun, even if some of us would have preferred Sack with an Olive; and just such random shots of history give us an insight into the character of men and times more lucid than that afforded by chapters of disquisition. For my part, that ice cream has a pleasant taste to me after a quarter century, and my heart cries out more decidedly now than then: "Heaven bless always the ice-cream printer for that and many other kindly deeds."

James's purchases left him with only two competitors, Caslon and Baskerville, both of the new régime, and after his death, in 1772, his foundry was sold at auction, piecemeal, and dispersed, the most of the ancient matrices, from which type had been made to print books now worth their weight in gold, going to a new foundry, established in Bristol by Joseph and Dr. Edmund Fry, of whom more anon.

Let us now find the origins of the leading existing English letterfoundries, which are, in order of seniority, H. W. Caslon & Co., Sir Charles Reed & Sons, V. & J. Figgins, all of London; Stephenson, Blake & Co., of Sheffield, and Miller & Richard, of Edinburgh.

I have already discussed Caslon's in the July Discursion. All these foundries, except Miller & Richard's, can be traced back to Caslon I. and his apprentices.

A few weeks ago I read that the foundry of Sir Charles Reed & Sons had been purchased by Stephenson, Blake & Co., on the death of the last of the sons. This foundry was started in 1757 by Thomas Cottrell, an apprentice of Caslon I. Passing through several hands, it came into the possession of Reed & Fox in 1861 and Sir Charles Reed & Sons in 1877. In 1876 Sir Charles Reed, who was knighted in recognition of his philanthropies, was a British Commissioner to the Centennial Exposition, and chairman of the judges of awards on type and printing materials. He was not popular in Philadelphia. In 1878 his government again honored him with a commissionership to the Paris Exposition, where he was again chairman of the judges of the type exhibits. The judges gave Gustave Mayeur, a French typefounder, in the first class internationally, a bronze medal; Bruce and MacKellar, silver medals; while the gold medals went to obscure concerns. Mayeur indignantly rejected his medal, and MacKellar relieved his feelings by writing: "If we had previously known that the chairman of the jury was to be the same fussy, impatient little knight who presided over a similar jury at the Philadelphia Exposition we should probably have declined to send anything whatever to Paris"; and yet that very exhibit started the sale of American type in Great Britain, and no outlay made in the type business ever realized such profitable returns. Sir Charles was of a type of estimable Englishmen who can not admit any superiority in the foreigner and his work, and it was, therefore, grati-

fying in one sense to find, when I visited his foundry, in 1888, that it had appropriated the whole Ronaldson series of old-style Roman without acknowledgment, pecuniary or otherwise. Back in 1829 the Reed foundry purchased the Fry foundry (1764) of Bristol. In 1828 Dr. Edmund Fry, in offering his foundry for sale, published a history of it, claiming that it included matrices made by the earlier English letterfounders, and expressing antipathy to a certain new fashion in type, the fat, black Romans (now call modern), which had entirely displaced the Romans which ornamental types! The most of them seem to be like Vice, which Pope tells us

> —"is a monster of so frightful mien,
> As to be hated needs but to be seen;
> Yet seen too oft, familiar with her face,
> We first endure, then pity, then embrace."

We look back on "curliques" and "beauts" which now seem to us the very delirium tremens of typographical bad taste, and wonder why we thought them "fine!" Look into that erstwhile much-lauded "master-work," Oscar Harpel's "Book of Specimens" (Cincinnati, 1872), but prepare to



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STEAMBOAT ROCK, DELLS OF THE WISCONSIN RIVER.

Jenson had chosen in 1471 and Caslon had perfected in 1720 *et sub.*, and also to the introduction of ornamental jobbing type about 1785, "at which period a rude, pernicious and most unclassical innovating System was commenced"—the fat-face moderns—"which was followed by the most injurious and desolating ravages on the property of every letterfounder in the kingdom, by the introduction of *fancy* letters of various anomalous forms, with names as appropriate, disgraceful in a Profession once held so sacred as to have its operations confined to consecrated Buildings, and those of the highest class." I sympathize with the good doctor. What enormities of typographical villainies have been perpetrated with these same shudder. Yet the very best authority on type display of that time, whose own printing has never been excelled in America, wrote of Harpel's book: "We do not wish to indulge in terms of superlative eulogy, but this admirable book sorely tempts us." Few ornamental types will stand the test of ten-year hindsight. The Fry family found a business more lucrative and not so easily "desolated" by "pernicious innovations." Visitors to England and readers of English publications have noticed Fry's Cocoa extensively advertised. These are the same Frys, now enormously wealthy and noted for their philanthropy. They are Quakers.

Joseph Jackson was apprenticed to Caslon I. to be taught "the whole art," but Caslon and his

son did their punchcutting in secret, so Joseph made a hole in the wall and observed the process. He practiced until he cut a steel punch, which he proudly exhibited to Caslon; but instead of praise he got a beating with threat of imprisonment. Entirely self-taught, Jackson, in his day, ranked next to Caslon as a punchcutter. He started a foundry in 1763. In 1771 he made the first mold to cast a hollow quadrat, and made the first quotation furniture. Metal furniture is a French invention. After Jackson's death, Caslon III., who had withdrawn from the business founded by his grandfather, which was then managed by his mother, the first woman letterfounder, bought the Jackson plant. He was succeeded by Caslon IV., who in 1810 invented the first mold for casting large type with cored bodies. At that time, and until Darius Wells of New York first introduced wood type in 1828, the largest type used was about twelve-line, cast in sand molds, with solid metal bodies. Caslon's invention made it more convenient to handle large types and saved metal at a time when prices were high, as appears from the circular advertising this improvement, in which twenty-four cents a pound is offered for old type metal.

In 1812 Caslon IV. patented type for setting around a cylinder, for rotary printing. It was one-third ordinary height, cast wedge-shaped, larger at face than at foot. It was never used, and was probably made to meet the wants of some one trying to invent a cylinder press — possibly Nicholson, who with Koenig, in 1814, made the first successful flat-bed cylinder press; but it illustrates the persistency of a good idea to give itself effect. The very first patent issued for a cylinder press was to William Nicholson in 1790. We do not know that it got further than paper, for the difficulty was to get a curved form. In his patent Nicholson suggests wedge-shaped type. Stereotyping had been practiced since 1725, but it was the clay process, making flat plates only. Notwithstanding many attempts, it remained for Richard M. Hoe to solve the problem in 1847, with his great type-revolving press, using ordinary type in turtles (curved saddles, fastened around the cylinder) in which wedge-shaped column rules and curved cross rules, dashes and brasses were used. It was then America took the lead in printing machinery that it has maintained ever since, for Hoe's type-revolving presses were used by the leading European newspapers. It was not a perfecting press, but was built with from four to ten cylinders, with a feeder for each. The speed was two thousand five hundred for each cylinder. The next step forward was the curved stereotype plate. In 1850, Charles Craske, then twenty-eight, and now the venerable head of the Charles Craske Electrotyping Company of New York, introduced papier-maché stereotyping. I do not know that he was the inventor of the paper matrix, for about that time a similar process was used in Europe, but Mr. Craske was the first to cast a curved plate. It was in 1854, for the New York *Herald*. In 1859 Dellagana, an Italian, produced curved plates for the London *Times*, but he cast each column separately, after which they were locked on the turtles, while Craske's plate was of the entire page, identically as done to-day. Dellagana's is now one of the largest platemaking concerns in London. In 1861 Mr. Craske was making curved plates for all the leading New York dailies and continued to do so for some years, as they were slow to put in their own stereotyping plants. Curved plates made possible the rotary perfecting press, invented by William Bullock, of New York State, and first put into practical use in 1867, in which year the inventor was caught in his machine and killed. Thus was completed the evolution of an idea which the great grandson of Caslon I. attempted to carry out, conceived in 1790, and perfected in 1867 by a man born in a town that did not exist in 1790.

Let me take advantage of my discursionary commission to ask the numerous large printing concerns located in towns like Norfolk, Roanoke, Watertown, Slingerlands, and others looking for a platemaking process, but who can not economically use an electrotyping plant, why they do not use the old clay stereotyping process? I last saw it used at Trenton, New Jersey, in 1877, in Sharpe's Printing House. It does not injure the type, as only a moderate heat is required, and it affords a deeper and sharper plate, that can be produced with a paper matrix, while the plant required will not cost much. Only one plate can be made from a clay matrix. Between the expensive electrotyping plant and the cheap and quick but inferior and type-ruining paper-matrix stereotype there is a broad gap, and the forgotten clay process will fill it.

But let us return to Caslon IV., who sold his foundry in 1817 to a Sheffield firm, which in 1841 assumed the present name of Stephenson, Blake & Co., a bright, clean-cut progressive foundry, and now the owners of the Reed foundry with its historical connections stretching back four hundred years to Winken de Worde. When American type was first sold in Great Britain it was found that the Stephenson & Blake pica, brevier and nonpariel sizes matched our twelve, eight and six-point bodies, which is a remarkable coincidence, because our standard sizes are themselves purely accidental.

One other of the foundries that collaterally descend from Caslon I. remains to be noticed.

Vincent Figgins, apprentice to Joseph Jackson, mentioned above, began business in 1792 and died in 1844, the leading founder of his day. He was succeeded by two sons in 1836, one of whom cut the well-known Caxton Black, based on one of Caxton's fonts of the year 1841, and shown in the 1900 edition of the American Type Founders Company's specimen book. In 1860 James Figgins, grandson of Vincent I., afterward an alderman of London and M. P., came into the business, and I believe still manages it. For several years in the middle of the last century this foundry was in the lead. It reproduced a great many of those beautiful French borders mentioned in my last Discursion, which were named, in England, Victoria, Ribbon, Ivy, etc., and most of which were also copied by our Johnson Type Foundry. The Figginses excelled in specimen books, and their large quarto surpassed anything produced in England. MacKellar, Smiths & Jordan issued a book of the same size in 1859 which cost $40,000. Both these books were modeled on French specimen books of the same size. In those days it was a privilege to receive a specimen book, and I remember as a lad that these great tomes were pored over with never-ending delight, but to-day they would be utterly impracticable on account of the expense of the large editions and the happy carelessness with which the average printer demands a costly specimen book. In late years Figgins's became intensely conservative, a London Bruce's, when David Wolfe Bruce allowed that great house to run to seed, sustained by his inherited millions rather than by the profits.

Of the leading British typefoundries, the greatest now is Miller & Richard, of Edinburgh, particularly well and favorably known to our readers in Canada, where its high and successful reputation is associated with the respect accorded to its agent, Mr. Robert Patterson. It was started in 1809 by William Miller, who had worked for Wilson, of Glasgow (1742), the originator of the ancient but minor foundry which is now known as the Marr Typefounding Company, of Edinburgh. He published a specimen book the same year, and it has been insinuated by Hansard in his "Typographia" that Wilson's punches were used surreptitiously to produce these early matrices. This might have escaped my attention had it not been pointed out to me in a spirit of brotherly love by two English letterfounders, who appeared to think that the alleged sins of the father should be visited on the grandsons. However this may be, the Miller & Richard foundry has done more for printerdom than any other foundry. First it refined those black fat-face Romans, closely allied to what we now term boldface, into the modern Roman used to-day, which were at first called Scotch faces. Early in the last century those horrid fat faces had not only driven



Photo by Count I. F. S. Von Rome.

TANGAHOE, WANGANUI RIVER.

good Dr. Fry out of the type business, but killed such faces as Caslon Old-style so completely that they disappeared from the specimen books and most of the matrices were thrown away; but in the Caslon foundry veneration for the handiwork of Caslon I. caused the punches and matrices of his great series to be preserved. In 1843 the Chiswick Press, being commissioned to print a novel with a plot laid in the time of Charles I., conceived the idea of giving it an antique appearance by printing it in a discarded old-face, and persuaded Caslon to cast a font. The result was a revelation to the publishing world, and the original Romans, which we call Old-styles, but which in the early days of their revival were called white-face Romans, again came into demand. But Caslon Old-style is a letter *de luxe*, not well adapted for general book or news work, and Miller & Richard, in 1844, perceiving this, originated and cut a modernized old-style Roman, which has been an inestimable boon to the craft. Our Bradford Old-style, and the body letter used in the *Century* and *Scribner's* Magazines, variations of which are found in every printing-office — we owe these to Miller & Richard, as well as the standard modern Romans used to-day. Then followed display letters to harmonize with the old-style Romans, such as Old-style Title, Old-style Condensed and Title, and Old-style Antique, a splendid face, too little appreciated by printers who go crazy over Jenson Old-style, which in the sizes below eighteen-point is very inferior to Old-style Antique. Jenson Old-style as a series is superior in gradation of sizes, but the recent addition of nine and fourteen-point sizes to Old-style Antique by American founders leaves only seven-point necessary to remedy this defect. It is not a satisfactory design above twenty-four-point, lacking color, just as modernized old-style, from which it is a development, weakens badly in the larger sizes. A recent attempt to boom this admirable face by renaming it and confusing its harmonious simplicity by adding ungainly swash capitals is misdirected.

The latest good addition to our Romans by Miller & Richard is a sort of marriage of old-style and modern, called by them, if my memory serves, "Old Roman," which should be permanently popular. It is now used as a body letter by *The Printing Art*. This face has recently been copied by A. D. Farmer & Son Company, which has added a number of larger sizes that discredit the series because they do not retain the character of the design. In Romans, whether we consider originality, design, cut, taste, accuracy, or workmanship and durability, Miller & Richard stand ahead of all letterfounders of any period; they have given little attention to jobbing type. They were the first British foundry to use typecasting machines, and the first to cast perfected type such as is now produced by the American automatic machines. In 1832 a Mr. Richard became a partner, and the present name was adopted, and two of his sons now constitute the firm. In volume of business it is second only to the American Type Founders Company.

(To be continued.)

Written for THE INLAND PRINTER.

THE MECHANISM AND ADJUSTMENT OF FOLDING MACHINES.

NO. VII.— BY PHILIP ZACE.

WHILE there are various makes of double-sixteen folders, each possessing some special and valuable features, the adjustments are made in much the same way in all machines containing a series of sheet-carrying tapes, contiguous rollers and coacting blades. The student only needs to study the adjustment of one or two of these to be master of all.

There is a special class of double-sixteen folders, however, in which the third fold is made between a pair of inclined rollers. Such a machine is now being marketed extensively by the Chambers Brothers Company. A brief review of this machine will be of value in this connection:

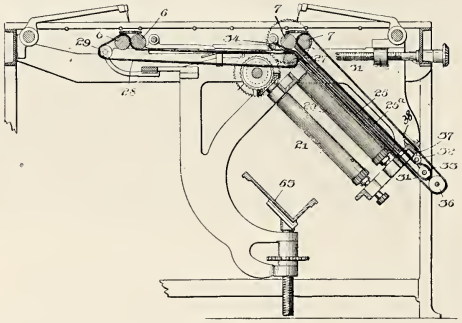


FIG. 31.

A side elevation, showing positions of the various rollers, is shown in Fig. 31. The first-fold rollers are not shown and they are of no importance in this description of features not found in other machines. Nos. 6 and 7 are the two pairs of second-fold rollers which crease the divided signatures separately. The third-fold rollers (20) are inclined and the calendering rollers (21) are arranged below and parallel to these. The course of the two signatures can be better described by following the circuit of the tapes. The portion of the sheet folded by the rollers (6)

is conveyed over and upon the inclined plate (25), and the portion folded by rollers (7) over and upon a similar plate (25a) in the following manner: Carrying tapes (28) run over one of the rollers (6) and under the other of these rollers, then over the roller (27) and return around idlers (29). Another set of tapes (31) passes around one of the rollers (7), then downwardly adjacent to the plate (25a) under idlers (32), over and around idlers (33), then upwardly above plate (25), around idler pulleys (34), over the roller (27), and downwardly next to the upper surface of plate (25), returning over idler-pulleys (36) to the roller (7). Thus the portion of the sheet folded by rollers (6) is advanced by tapes (28) until its forward edge comes between the latter and the under surface of the portion of tapes (31) adjacent to the plate (25). The tapes (31) deflect the sheet downwardly at this point, holding it in contact with the upper surface of the plate.

The other signature, folded by rollers (7), is carried downwardly between the plate (25a) and the tapes (31). Both signatures are stopped in this position by a stop-bar (38). A kicker operated and timed by a cam pushes both signatures along the stop-bar to a certain fixed and definite position of adjustment, regulated by the depth of the groove in the cam. When the sheets have been thus adjusted, the usual folding-blade tucks the one upon the plate (25a) within the other upon plate (25) and the two into the bite of folding rollers (20), thus producing a signature of two inserted sixteens. The folded sheet passes from there between the calendering rollers (21) into the packing box (63).

The readjustment to produce two continuous signatures of sixteen pages each is accomplished by retiming the cams after the method heretofore described. The correction of imperfect folding, the setting of rollers, the adjustment of tapes, the elevation and lowering of the packing trough — all of these are governed by the same principles which have been applied in other machines. All of these have been previously described.

In folding two consecutive signatures on the Brown double-sixteen folding machine, both second-fold knives are timed alike. This is because there are two third-fold stops and two third-fold blades. Both signatures arrive over the third-fold rollers simultaneously. This pair of rollers is extended over the entire range of both folded sheets so that the two signatures pass through at the same time, one at each end of the rollers. The sheets fall into two separate packing boxes. To produce a signature of two inserted sixteens, the operator should remove the third-fold stop on the gripper side of the machine, raise the inside third-folder blade, and recede the "header-up" or kicker. The kicker is adjustable out of contact with the paper by being pushed back on the rod. The cams must be retimed so that both signatures will reach and meet the third-fold stop at the same time.

(To be continued.)

Written for THE INLAND PRINTER.

LIQUID LENSES.

BY S. N. A.



THE subject of substitutes for glass in the production of lenses has of late received much attention. The proposal in itself is not new except as recent developments deal with large size lenses.

In 1831, David Brewster, in his "Optics," refers to microscopic lenses, which were not made of glass, in the following words: "Mr. Stephen Gray[1] made globules for microscopes by inserting drops of water in small apertures. I have made them in the same way with oils and varnishes; but the finest of all single microscopes may be executed by forming minute plano-convex lenses upon glass with different fluids." In this same treatise, on page 365, is given a table of the magnifying powers of M. d'Alembert's achromatic opera glasses with single lenses. It will be noted that a number of liquid lenses are listed.

"If we use an object glass of very low dispersive power, the refraction of the violet rays may be corrected by a concave eye lens of a high dispersive power, as will be seen by the following table:

Object glass made of	Eye glass made of	Magnifying power
	Flint glass	1¼
Crown glass water	Oil of cassia	2
Rock crystal	Flint glass	2
Rock crystal	Oil of aniseseed	3
Crown glass	Oil of cassia	3
Rock crystal	Oil of cassia	6

Although all the rays are made to enter the eye parallel in these combinations, yet the correction of color is not satisfactory."

The most interesting reference to the use and construction of liquid lenses is found in the author's description of Barlow's achromatic telescope: "In the year 1813 I discovered the remarkable dispersive power of sulphuret of carbon, having found that it exceeds all fluid bodies in refractive power, surpassing even flint glass, topaz, and tourmaline; and that in dispersive power it exceeds every fluid substance except oil of cassia, holding an intermediate place between phosphorus and balsam of tolu. * * * Although oil of cassia surpasses the sulphuret of carbon in

[1] Philosophical Transactions, 1696.

its power of dispersion, yet from the yellow color with which it is tinged, it is greatly inferior to the latter as an optical fluid, unless in cases where a very thin concave lens is required. The extreme volatility of the sulphuret is undoubtedly a disadvantage, but as this volatility may be restrained, we have no hesitation in *considering the sulphuret of carbon as a fluid of great value in optical researches, and which may be of incalculable service in the construction of optical instruments.*[2] This anticipation has been realized by Mr. Barlow, who has employed sulphuret of carbon as a substitute for flint glass, in correcting the dispersion of the convex lens."

is quite rapid, making possible the taking of a cabinet-size portrait with only four sixteen candle-power electric lamps and an exposure of ten seconds, the lens working at f/3.5 (British). A specimen three-color study is also shown, which required thirty seconds' exposure through the red filter, six seconds through the green, and a half-second through the blue on a gem-colored dry plate.

The most recent aspirant for publicity in this direction, according to *The Keystone*, is a Hungarian chemist, of whom Consul A. W. Rublee, at Vienna, reports as having produced a practical liquid lens, after a number of years of experi-



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INKSTAND AND SUGAR BOWL, DELLS OF THE WISCONSIN RIVER.

In describing the manner in which Mr. Barlow constructed his liquid lens, he says: "The fluid is contained between two meniscus cheeks and a glass ring, so that the radius of the concave fluid lens is 144 inches toward the eye, and 56.4 toward the object lens (7.8 inches clear aperture). The fluid is put in at a high temperature, and the contraction which it experiences in cooling is said to keep everything perfectly tight. No decomposition of the fluid has yet been observed."

Among recent workers in this field of optics is Edward F. Grün, who described his lens in the 1903-4 Penrose Year Book, on page 9. From the specimens shown, the speed of the lens

2 Edinburgh Transactions, Vol. VIII, p. 285. February 7, 1814.

ments. The consul reports that these lenses are already being manufactured in Austria, where it is claimed they are attracting attention on account of their low price and efficiency. The report further says: "The importance of this invention in the field of astronomy is obviously considerable. The largest glass lens heretofore manufactured out of massive glass for astronomical purposes has a diameter of about 1.50 meters (4.92 feet) and it required several years to make it, while the price was several hundred thousands of marks (1 mark, 23.8 cents). Such a lens can be manufactured by the new process in a few weeks at a cost of two thousand or three thousand marks. The price of a glass lens of the best German manu-

facture, with a diameter of twenty-five centimeters (9.84 inches), is now about seven thousand marks, whereas the price of a similar lens made by the new process is about one hundred and fifty marks. Lenses of smaller diameter for photographic purposes, for opera glasses, reading glasses, etc., can be produced at correspondingly smaller cost. The lens consists of a fluid substance inclosed between two unusually hard glass surfaces similar to watch crystals, in which the refractive power and other characteristic properties are so chosen that the glass surfaces not only serve to hold the fluid, but also combine with the fluid to overcome such defects as are scarcely to be avoided in ordinary lenses.

The fluid contained in the lens is hermetically closed, so that no air can enter and exercise a damaging effect. The fluid does not evaporate and its composition is such that its properties are not affected by time or by temperature. The coefficient of expansion, both of the glass and of the fluid, is approximately the same between the temperatures of 15° of cold to 60° of heat. Another advantage of the lens is that, on account of the fact that the fluid is not dense and the glass crystals are thin, the whole lens combination through which the light must penetrate is very slight."

WHEN I AM DEAD.

When I am dead, if men can say
" He helped the world upon its way,
With all his faults of word and deed
Mankind did have some little need
Of what he gave " — then in my grave
No greater honor shall I crave.

If they can say — if they but can —
" He did his best, he played the man,
His ways were straight; his soul was clean;
His failings not unkind nor mean;
He loved his fellow men and tried
To help them " — I'll be satisfied.

But when I'm gone, if even one
Can weep because my life is done
And feel the world is something bare
Because I am no longer there —
Call me a knave, my life misspent —
No matter, I shall be content.— *New York Press.*

"LIKE THE KIPPLING AND THE DICKENS."

The proprietors of a Siamese newspaper have distributed handbills containing the following notice:

" The news of English we tell the latest. Writ in perfectly style and most earliest. Do a murder, git commit, we hear of and tell it. Do a mighty chief die, we publish it, and in borders of sombre. Staff has each one been colleged, and write like the Kippling and the Dickens. We circle every town and extortionate not for advertisements. Buy it. Buy it. Tell each of you its greatness for good. Ready on Friday, Number first."— *The Bangkok Times.*

If you advertise your competitor's weakness he will correct it.— *Star Monthly Solicitor.*

Written for THE INLAND PRINTER.

GRAMMARIANS ON COMPOUND WORDS.

BY F. HORACE TEALL.



IN this article the term " compound word " is to be used to mean any word made by joining two words into one, whether with or without a hyphen, as that is what it means in all grammar-books. Grammar-writers do not distinguish the close forms as " one word," as printers do, because grammatically a form with a hyphen is one word, the function of the hyphen being the indication of unity.

Not much that is original is to be said here, as the object is merely to bring together some bits of what others have said. Of course we can not collect even bits from all writers, for it is simply impossible to do that. More than half a century ago Goold Brown listed half a thousand text-books of grammar, and others have been published since his time even more frequently than before. We shall see, however, that the grammarians have seldom said much about compound words, and that they leave the decision in all but the few terms they give to individual understanding or to the dictionaries.

Professor Alexander Bain, in " Higher English Grammar," pages 257 to 263, says enough to enable any one to make a systematic practice for himself, which would have to be done, of course, by analogy. We give here some parts of what he says: " Compound words are those that are made up of simple words of independent significance; as day-star, sun-beam, rose-tinted, commander-in-chief. As a general rule the first word qualifies the second. Finger-ring is a ring for the finger; ring-finger is the finger that wears the ring. A rose-tree is a tree of the kind that grows roses; a tree-rose is a rose of the kind that grows on trees. A change of accent is usually required to make two words into a compound word. Euphony may sometimes interfere with this rule; as monkshood, well-head, hop-pole, which can hardly avoid accent on both members. Nouns are combined with nearly all the other parts of speech; and in a few cases compound nouns are formed by union of two words belonging to other parts of speech. Nouns with nouns — birthday, churchyard, coffeehouse, coppersmith, cornfield, handbook, moonlight, rosebud. To these we should add drawing-room, resting-place, riding-whip, turning-lathe, walking-stick, as drawing, riding, etc., are verbal equivalents to nouns. In self-love, self is substantially a noun."

Professor Bain groups examples under headings like " Nouns with Adjectives," " Nouns with Verbs," etc. Following are some of his com-

pounds taken from each of the twenty-six classes he thus makes: craftsman, herdsman, catspaw, Jack-o'-lantern, Will-o'-the-wisp, fortnight, redbreast, stronghold, cutwater, daredevil, by-play, by-word, sundown, afternoon, afterthought, nonesuch, outlay, hear-say, bloodred, child-like, pale-blue, red-hot, all-seeing, fruit-bearing, awe-struck, home-grown, clear-sounding, far-fetched, break-neck, hook-nosed, able-bodied, back-bite, way-lay, white-wash, cross-question, length-ways, likewise, whereas, hereupon, nowhere, nevertheless, within. These are copied as printed in the book, and show some hyphens that are seldom used; the point to be enforced is simply that the author of the book asserted that each of them and of many others is a compound word — not that he thought so, but that it is so.

In "Essentials of English Grammar," William Dwight Whitney says: "It would be proper to say that truthful is a word made up of the two other independent words truth and full. Further examples are rainbow, grass-plot, gentleman, washtub, high-born, homesick, browbeat, fulfil. Such a word is called a compound. There are great numbers of compound words in English, and we are all the time making new ones. Sometimes the compounded words stand in the compound just as they would in a sentence, and seem simply to have grown together into one; such are blackberry, broadaxe, gentleman, highland, grandfather. But much more often they have such a relation to one another that if we used them separately we should have to change their order, or put in other words to connect them, or both."

Professor Whitney does not say that any of the words he gives are written without compounding by some people. He simply says that they are compound words, and his way of saying so and his practice show plainly that he meant to state a principle of analogy — that is, that in each case he means that any term of a nature exactly similar is also a compound word. Some of his words are thunder-cloud, breast-high, fence-corner, beggar-girl, rosy-faced, school-boy, play-ground, easy-chair, penknife, inkstand, plaything, bedfellow, winding-sheet, cloud-fold, harvest-field, sunfire, language-learning, spelling-book, "writing-desk is a common noun," tense-inflection, mode-inflection.

One of the recent text-books is Metcalf's "English Grammar for Common Schools." It contains twenty-four lines about compound words, and says: "A compound word will frequently express quite a different idea from the one expressed when its parts are written separately. For example, a marble box is made of marble, but a marble-box is a box in which marbles are kept. Not every black bird is a blackbird. The hyphen usually connects the parts of a compound word which is new or is little used; as, ant-hill, a rough-and-tumble fight. When the word is in common use the hyphen is usually omitted; as, railroad, inkstand, blackboard. Still, no invariable rule can be given for the use or omission of the hyphen in compound words. Consult Webster's Dictionary."

The authors (there are two) did not themselves consult Webster — at least they did not conform to it — unless they mean the old one, which is not likely. They print with hyphens nonsonant, sick-room, book-case, town-hall, watch-dog, hay-cart, verb-phrase, mountain-side, sleeping-car, and not one of these hyphens is given in the International, the only work properly meant by their direction as given. This must not be read as an assertion that the hyphens are not properly used. Only one is in any degree improper, in principle, and that one is so only on the ground of usage.

Every one of these hyphens, however, contradicts the only reason ventured in support of hyphens — that of newness or little use. All the words are old and often used. In plain fact, the reason given is as far from stating the actual practice of anybody as it could be. Some of the newest compounds should be written as one word on principle. If any principle makes blackbird one word, it must be one that was properly as active the first time as it is now; and the same principle just as strongly prescribes bluebird, redbird, redcoat, and redskin, and many others.

Huber Gray Buehler is another recent author. He says: "The parts of a compound word are often connected with a hyphen; as, hair-brush, son-in-law. Whether to use the hyphen or not can not be determined by rule. It is for the most part a question of usage, which must be learned from observation or from the dictionary."

Did Mr. Buehler get the forms thought-group, sentence-structure, subject-matter, bull-elephant, cow-elephant, from a dictionary? Certainly not, because they are not entered in the dictionaries. The only way he could get them through observation would be by observing that a certain principle is present in them and makes them compounds. His observation misled him in the last two, for real principle is adverse to compounding them.

Dr. Maxwell, Superintendent of Schools in New York city, says: "Some words are prime. Others are compound; that is, are composed of two or more simple words; as, rose-bush, apple-tree." He also makes the weak statement about frequency of use: "When the compound is an unusual one, as deer-stalking, loud-bellowing, the parts are usually connected in writing by a

hyphen. In commonly used compounds the hyphen is generally omitted." Deer-stalking is not an unusual word, except that there is comparatively little occasion to use it, and many in every-day use are hyphened, even in Dr. Maxwell's own book, where we find text-book, bird's-eye, word-formation, class-name, school-boy, apple-bloom, lightning-rod, cork-tree, maple-tree, sea-shore, North-west, door-step. Dr. Maxwell says nothing as to when a term should or should not be compounded.

Henry Sweet, most known as a phonetist, is also of high rank as a philologist. In 1900 he published "A New English Grammar," which he calls in his preface the most scientific one yet written. In his preface he says: "I remember once reading a paper on grammar before the Philological Society, in which I modestly advanced the view that cannon in cannon-ball was not an adjective. When I had finished my paper, an English philologist, who was also a teacher, got up, and told me that my criticisms were superfluous, as no practical teacher possessed of common sense would think of calling cannon in cannon-ball an adjective. Thereupon another eminent philologist, who was not only a schoolmaster, but had written an English grammar, got up, and, to the intense amusement of the meeting, maintained that cannon in cannon-ball was an adjective and nothing else; and he found another speaker to support him." It will be seen that cannon-ball is compounded, and there is little doubt that the last two speakers mentioned would write it so; and the only possible reason to give for compounding is one that really means that cannon is not an adjective. Those two men did not comprehend this, but it is fact. Dr. Sweet says considerable about the nature of compounds, but it is too much scattered to quote. He uses many of them, as apple-tree, place-name, class-name, class-word, phenomenon-noun, form-word, substance-adjective, plural- and case-infections.

The intention was to cite a larger number of writers, but more has been given from each than had been meant, and these will have to suffice. They are carefully selected as typical of the practice of grammarians, and that practice has no right to exist save as a record of best usage. Readers will find in it a good beginning of my argument in favor of compounding certain classes of terms, and some hint of what the classes are.



Photo by Count I. F. S. Von Rome. "THE NUGGETS," PORT MOLYNEAUX, NEW ZEALAND.

THE other day a Mr. Avery was married to a Miss Small. A subeditor headed the report of the ceremony: "Avery-Small Wedding." But the operator knew better, and set it up as "A Very Small Wedding."

Written for THE INLAND PRINTER.

WHEELER'S METZOGRAPH SCREENS.

BY N. S. A.



THE user and maker of engravings of various kinds has of late been assailed by a new candidate for favor. This suppliant has so successfully pressed his suit that he is no longer in the transitory stage of seeking opportunities for admission into the ranks of practical reproductive processes, but is now in turn being sought.

It has been a laborious effort and one deserving of the greatest credit, because the field was preoccupied by an earlier, well fortified medium—the half-tone screen process.

The trade has come to know of the "Metzograph Screen" through very practical demonstrations, and the demand for this form of screen is a growing one, due to the fact that the lack of softness possessed by the ordinary half-tone with its regularity of geometric dots in rows and phalanxes as in battle array militates against its interpreting value for many kinds of reproductions. The irregular grain of the metzograph screen does not impose its own texture upon that of the subject as the cross-lined half-tone screen does; at any event, not in such a harsh manner; the irregular texture more frequently harmonizes with that of the subject.

The reason for the marked difference between metzograph and half-tone engravings lies in the physical differences of the screens. The half-tone screen comprises a series of uniformly shaped cross lines, usually, having the dark portions thereof the same width as the transparent parts which lie between, thus forming a series of transparent squares, all of which are as like, the one to the other, as "peas in a pod." When such a screen is used in front of a sensitive plate in the camera, the various *transparent* squares permit the light to pass therethrough from the object to the sensitive plate; where the illumination or light reflected from a given portion of the object is small, the size of the area of light acting through the squares onto the plate will be smaller than if the light action was intense. It does so happen that the one side of the transparent square may be called upon to transmit more light than the other; then the area of action on the plate to a limited extent will be variable and the boundary will be slightly irregular. This irregularity, however, is limited by the inherent regularity of the translating device — the screen.

From the standpoint of a photograph itself, it should be irregular in all directions, as to shape, size and as to proximity to other areas within its immediate vicinity, because such is the average order of irregularity of granular structures. The metzograph screen meets these theoretical conditions in an effective manner, yet its irregularity is not of a crude form, but, as said, one that harmonizes with the average surface conditions found in the general run of objects.

It has been stated by Max Levy, the premier authority on geometrically ruled screens, that they can be made so fine as to produce an invisible dot effect, when ruled at four hundred lines per inch; this advantage more than offsetting any difficulties there may be in printing half-tones of such a fine pitch —.0025 inch, with high-light dots of about .0008 inch diameter. With screens of such a large number of lines, an inherent difficulty is found in the tendency of the details of the shadows to lose themselves during the operation of printing, because of the exceedingly small white dots, less than .001 inch in diameter filling in. This also holds good as the dots increase up to and beyond the "quarter white" region, thus making

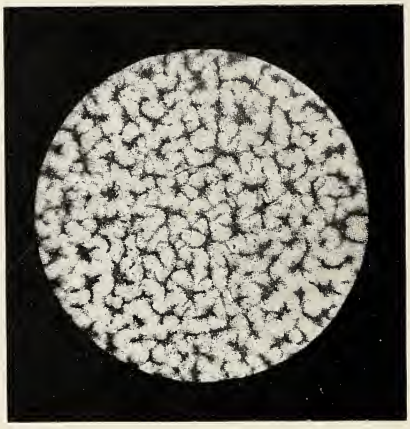


FIG. 1.—Metzograph "grain" when screen is used at the proper distance from the sensitive plate.

the result too contrasty. The high lights will remain clearer, of course, but the carrying of the blacks so far toward the middle tones is an almost insuperable difficulty.

It is not fair to process possibilities to dogmatically say that Levy screens *alone* are the means that perforce must be used in all cases for all kinds of subjects. Per contra; neither is it consistent to say a Wheeler metzograph screen is adaptable to each and every subject with the same degree of translating power, for obviously, such can not be the case with either method. The entire process field would receive a marked uplift if workers were more free to use the method of

translating the peculiarities of a given subject into a relief plate that was best adapted thereto.

The trade, however, has its own directing forces to thank for the existence of an inelastic demand, a fad, if such a designation is allowable for a given method for all subjects, regardless of adaptability. The artistic element is largely lacking; in fact, there is little chance for its growth, even if not entirely dead. It should be possible to so combine the different processes in one establishment as to work them in a successful manner commercially and put greater artistic variety into the output. The word Metzograph is undoubtedly derived from the Italian, *Mez'zo*, meaning medium, half or moderate, and *graphe*, the Greek for recording, writing, etc. Standard authorities give the pronunciation of Mez'zo as Med'zo, the prevailing English pronunciation of the last letter of the alphabet, being zed, may form a link in the substitution of the letter t for the first z of Mez'zo. The American is much confused at the change in pronunciation of his familiar yankee "zee" to a British "zed."

Metzograph screens are in great contrast to the ordinary cross-ruled ones, because there is no pigment or coloring matter on their surface. They are produced by flowing an acid resist medium, solvent in alcohol, over a plate of glass. The spirit evaporates and as the medium, Pyrobetulin, dries, it contracts so as to cause the glass to be laid bare in an irregular manner; cracks are formed which vary in direction, in width and proximity to each other. These cracks, or, technically speaking, reticulations, allow applied hydrofluoric acid to slightly etch the glass. When the resist ground is removed, the screen is complete. It is seen to be almost clear glass, with a slight veil caused by the delicate reticulations. Varying the thickness of the acid resist film, by changing the amount of solvent used, produces screens having varying degrees of texture.

The screens must be placed as near as possible to the sensitive plate, because the lenticular surface (composed of an infinite number of irregular shaped lenses) being of short focus, will lose their best interpreting power when they are not placed in the position of mean focus; this is very clearly shown in the two figures taken from Mr. Henry O. Klein's book on "Collodion Emulsion." Fig. 1 shows the "grain" when the screen is worked at proper distance, and Fig. 2 shows the results that accompany improper screen distance. These views are of photo-micrographs, made by Mr. Edg. Senior, of the Chelsea Polytechnic, London, who also made the original of Fig. 3, which is taken from Penrose's Annual of 1902-3. Fig. 3 shows an enlargement of the screen itself.

Since the screen transmits more light than a cross-ruled screen, the exposure is considerably less. To quote Mr. Klein's book, on page 65, "The illustrations show distinctly the difference between the correct and incorrect screen distances. Both negatives were taken with the same stop, same flash, same exposure, the only difference being in the screen distance, which, if incorrect, sacrifices detail, produces coarse grain and makes the work of printing on metal extremely difficult. Another very important point we have to mention is the question of lens aperture. As there is no light-obstructing pigment on the

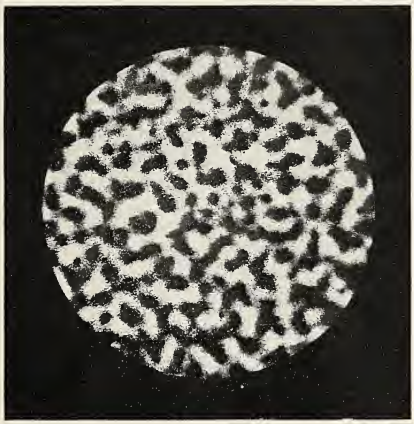


Fig. 2.— Improper metzograph "grain" when screen is too far away from the sensitive plate, or when too large a stop is used.

metzograph screen, very small stops are practical and necessary, f/64 being the largest stop that may be used. F/192 — f/384 are the working aperture stops which have given us the best results in collodion emulsion work. The flash on white paper can not be dispensed with, and if the copy is dark will, with a stop of half the diameter of the exposure stop, amount to one-half of the total exposures. Once these two points — screen distance and stop — have been determined the work becomes perfectly mechanical, and is considerably simpler than the making of an ordinary half-tone negative."

The proper way to determine the screen distance, which must be less than one millimeter (1-25 inch) away from the sensitive plate, is to place strips of paper on the edges of the screen which will hold the sensitive plate the proper distance from the screen surface. This is found by a trial and error method and the paper separating strips are built up until the correct distance has been found, which will always be the same if the same stop is used. In order that there may be some latitude, these separators may be placed at

the corners so as to be removable, providing there is no rabbet in the screenholder at the corners. When a set has been formed of the proper thickness the separators can be marked to show the side which is to lie next to the screen face and the stop number indicated thereon. Thus a number of sets can be prepared and used as required.

If the screen distance is increased with a given stop, the contrasts will be accentuated, or conversely, with a given screen distance and a larger stop, the same effect will follow. If this is carried too far, the results will be as shown in Fig. 2.

A circular stop of one one-hundredth, the camera extension, is recommended by H. Calmels in *Le Procède*, Paris.

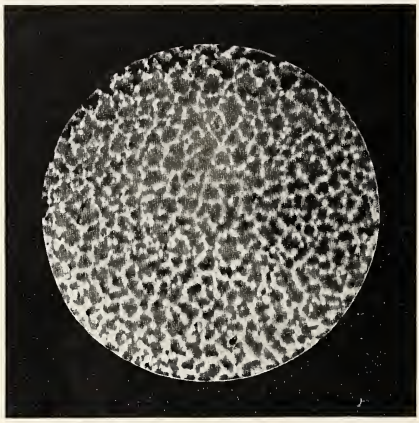


Fig. 3.— Microphotograph of metzograph screen.

The Process Engravers' Monthly, London, has translated the following relating to a modified use of the screens, from *Le Procède:* "Many German operators use this screen in quite a different manner. The subject is photographed in the ordinary way on wet collodion or collodion emulsion without any screen at all. The negative is then stripped and used as a film, or reversed on to glass and placed in contact with the sensitized metal, with a metzograph on the outside, and then exposed; care being taken to use parallel light. With an arc lamp this is of course simple by employing a condenser, but for daylight the frame should be put at the bottom of a box, the sides of which should be three times as high as the diagonal of the frame, and then the arrangement directed to the sky. With a little practice it is stated that the results obtainable are equal to those obtained by the use of the screen in the camera. A grained screen does not give so strong an impression of a mechanical process, and for three and four color work it should be of great advantage, as it entirely obviates any moiré. Whilst the grained screen is sometimes used for the yellow printing plate with red and blue cross-line screens, some very good results are obtained by using the grain screen for all three or four colors, and then it should be laterally displaced one or two millimetres for each successive exposure. The irregularity of the grain has other advantages; if with a cross-line screen one of the dots in the whites be missing, the eye is instantly attracted to this white spot, and the effect is disastrous. This is not so with the metzograph. It is much easier to retouch. The screens may be used for photography and also for photogravure. For the latter process, a transparency is made from the grained negative and printed on to the sensitized metal, when a slight etch will give a plate which can be very easily printed from, and the result is like a photogravure with coarse grain."

THE PLANTIN MUSEUM, ANTWERP.

A correspondent, in the Isle of Man *Examiner* of May 5, describes his impressions of a short holiday spent in Belgium during last Easter. The following is an account of a visit to the old printing-house of Plantin-Moretus, in Antwerp: "The Plantin Museum is the residence and printing-office of one of the early typographers, a gentleman named Plantin, who was the personal friend of Reubens. Some two hundred years ago Moretus, one of Plantin's successors, made over the establishment to the municipality, who have since preserved it in its original state. There is the printing-office to be seen as it existed a couple of centuries ago. The most surprising feature is the modern look of the portions of the building devoted to the setting of type and the imposing and printing. The caseroom looks as if the compositors had just laid down their 'sticks' and gone to dinner. The slips of 'copy' are to be seen, and certain well-marked proofs, ready for correction, attest that the old-day typographer was no more free from error than is the printer of to-day. In connection with the house there is a delightful courtyard, two old libraries, and some furniture, so old and beautiful as to defy description. In certain of the rooms are priceless manuscripts and prints, numerous old woodcut blocks, designs for title-pages, and a great array of other interesting things, not forgetting some fine portraits by Reubens. A week could be spent profitably in the museum, and even then the sightseer would not have had time to exhaust its treasures; yet I was informed that very few English people visit the place. If they only knew what they missed! Printers in those days would appear to have been a more godly lot than now. At one end of the caseroom is a *prie Dieu* (prayer desk) underneath a crucifix. Presumably, when an unusually bad piece of 'copy' was received by the men in the employ of Moretus or Plantin, they said a prayer for the author. Now they objurgate him in terms that would not look well in type."

A MEMBER OF THE PROFESSION.

"What are you doing now?"

"I am writing for a living."

"Do you write for magazines or newspapers?"

"Neither; I keep writing to my father to send me more money." — *Caricaturista.*

Written for The Inland Printer.

MODERN BOOKBINDING.

BY A. HUGHMARK.

NO. XVII.— NEW MACHINES.

EDITION binding can now be said to be a machine binding entirely. The few operations that but recently had to be performed by hand are now executed by machines and doing it more satisfactorily. The journeyman whose specialty was either casing or headbanding and lining will have to find other occupations. He could never be termed a craftsman and was but a sorry result of the present-day apprentice system or, rather, the lack of one.

A few years ago when the "Crawley Rounder and Backer" was put on the market, about one-half of the piecework labor was knocked out of the scale of the edition binder. The trimming was made an easy matter by the "Seybold Duplex," and next came the Smyth casemaking and cloth-cutting machines. The Smyth casing-in machine had scarcely had time to be fully demonstrated before the Blauvelt headbanding and lining machine was put on the market. The last-named machine completed the "set" for machine binding.

There was still room for the inventive genius in the field of female bindery labor. Gathering

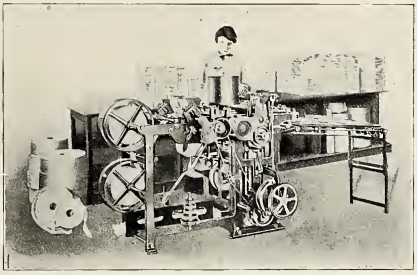


Fig. 1.

and collating had already been simplified by the Smyth compartment gathering machine; covering machines had been installed and gluing machines had become plentiful. Manufacturers of office supplies brought out several labor-saving machines that became useful to the modern bindery as well. Among these can be mentioned the two and three fold circular folders, the wrapping mailers, envelope sealers and addressing machines.

There still remained two costly items of female labor, silk stitching and school-book joints. When it is understood that it takes a well-experienced girl to stitch one hundred booklets or to make one hundred complete end-sheets per hour, one can readily see that the cost was not the worst drawback. It would usually require more help than could be furnished, with all the other multitudinous details and jobs to be rushed out simultaneously. The Smyth silk-stitching and cord-tying machine will tie either flat or saddle, tight or loose loop, two or three hole stitch. This means that it takes a booklet or a calendar or strings an almanac with equal facility.

The Marsh taped end-paper machine (Fig. 1) will produce with a girl attendant fifteen thousand to eighteen thousand per day. It has a range of from 3 by 4 to 11 by 15. The product is more uniform than could be done by hand-work. Fig. 2 shows the end-sheets as delivered from the machine.



Fig. 2.

The books shown in Fig. 3 are side-stitched and cased in with this kind of reinforcing. The paper is fed into the machine from two rolls seen in the back of the illustration. The upper reel contains a roll the full width of the books; this is for the fly-leaf. The lower one is narrower by the width of the stitching distance plus one-quarter inch for a free hinge. The two paper strips are kept in alignment on the front

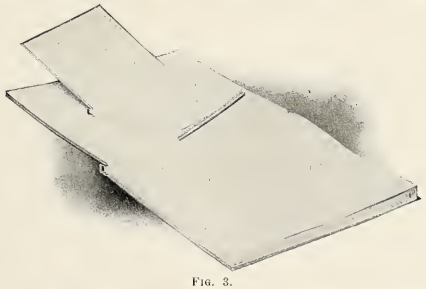


Fig. 3.

while they are run over paste rollers. The tape is applied from underneath and a pressure bar attaches it smoothly, after which the whole is cut off into proper lengths and delivered. The hinge material can be any width of tape which will be fed from reels, or strips can be used, cut from the

bolt in the usual manner. For the latter case the strips are laid into a trough that can be seen at the bottom of the frame of machine.

The machine, Fig. 4, is for gluing or gumming. It has gas attachments for heating glue, but will work with mucilage, paste or dextrin. It delivers the work wet side up on a conveyor. This is another Smyth patent.

The Seybold Machine Company has an excellent thing in their rotary trimmer, Fig. 5. It

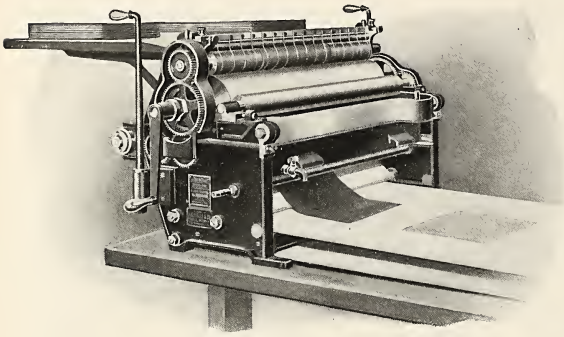


Fig. 4.

takes an enormous lot of book or pamphlet work to keep it running, which can be seen when one considers that it delivers six hundred piles an hour. It is as easy to change as the duplex from the minimum size, 3½ by 6, to the maximum of 13½ by 18. The operator stands near the pedal and clutch-lever and has only to move the clutch out to stop the knives anywhere. The table rotates from left to right automatically, making a quarter of a turn each time. At the operator's place is always an empty section. The headgage is on his left, so that he can grasp the pile near the top and bottom, having it well jogged, and shove it firmly against the back post and head guide, after which a temporary or auxiliary clamp comes down and holds the pile in position until the real clamp, moving with the knives, takes a firmer hold. The operator here has only one pile to handle for each cut instead of two in the duplex. With the first turn from the operator the pile is carried into position between two short knives aligned parallel where the two ends are trimmed off. The second turn of the table carries the pile under the single and longer knife where the fore edge is cut. The third move is to a delivery point, where a boy stands to take away and stack up the work on movable platforms or trucks. The fourth is to the feeding point again, where another helper should be to jog up and keep the operator busy. The work cut on this machine is as good, if not better, than that turned out from any other machine. It is easier to run than the duplex. It is provided with a trough for shavings which has a spout at the point where the front is cut.

A new style smashing machine — "book compressor" is the term used in a proper description of it — is made by the same manufacturers. As can be seen from the illustration, Fig. 6, it has horizontal jaws and powerful toggles which exert the pressure on the inside cheek. It was primarily designed to take the swell out of the backs of sewed books. It accomplishes this by means of two inner jaws, *a* and *b*, that are beveled off toward the bottom and extend out from the pressing cheeks by the force of heavy springs. The jaws are set by the turning of the hand-wheel in front. The greatest space between the jaws is six inches. When smashing, the books are dropped back down until they rest on the smooth iron bed of the machine. When the clutch is thrown in by pressing on the pedal the pressure is applied away from the back of the books first, thereby preventing any section from slipping or creeping in. As the pressure increases, the inner jaws are forced back on their springs, leaving the faces of both the cheeks perpendicular. The books are taken out flat and square on the backs, a thing not possible in the ordinary smasher. Aside from doing away with the hand labor of beating, it can be used to smash all work for covering, whether wire-stitched or sewed, as it is in any event only necessary to smash the backs and bolts of headfolds.

It may be necessary to turn the books so as to compress the heads as well, inasmuch as this machine does not smash the whole surface of the

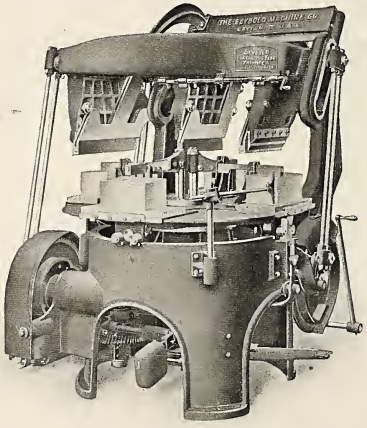


Fig. 5.

page, but the ease of the movements enables the operator to turn out as great a quantity. The safety of its working is another advantage it has over the ordinary smasher.

The Lewis end-sheet tipping machine, sold by the E. C. Fuller Company, works the paper from a roll cut to the length of the book to be end-sheeted. Each operation cuts off enough paper for one end-sheet, folds it in the center and tips it on to a signature that has been fed in simul-

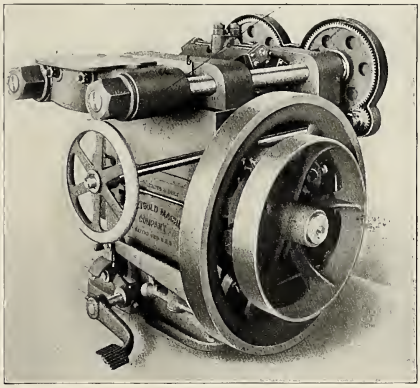


Fig. 6.

taneously. It insures the secure adhesion of every end-sheet and keeps the correct alignment at the back. In the tipping by hand the folded end-sheets are run out and a lot pasted at one time, with the consequence that toward the end of that pasting the sheets are dry, at least in spots. Furthermore, the girls usually rub or attempt to do so on only one end of the sheet, the left. The result is that when the book has been opened a few times the end-sheets break away and leave an unsightly crack as well as a weakened binding.

In binderies where calendar or tag work is a line of business the Dewes Punching and Eyeletting machine is an excellent labor-saver. It is small, run by power, adjustable to different size eyelets and does the work in one operation. A pony circular folder, taking a sheet from 6 by 9 to 14 by 20, is made by the Dexter Folder Company. It makes three or four right-angle folds, parallel third or fourth, also note and letter folds. A pasting attachment for eight pages is also supplied. The usefulness for a machine of this kind is apparent to any one having jobwork or mailing.

(To be continued.)

He alone is immune from cephalogenesis who has butted the wall three times and perceived that the wall fell not.— *Elbert Hubbard.*

6–4

THE PRINTER NOT LIABLE FOR ERRORS.

A decision rendered by the Court of Appeals of the Parish of Orleans, Louisiana, may prove of interest to printers generally. The proprietor of an evening paper sued a printer operating a Linotype to recover $5 for an advertisement for which payment was refused on account of an error in the advertisement made by the operator. The lower court found for the plaintiff, and on appeal the Court of Appeals affirmed the judgment, but on a rehearing found for the defendant. It appears that the proprietor of the paper is his own proofreader, though he does not pretend to be an expert proofreader, and an examination of the proof showed the error was not marked in the style usually adopted by proofreaders, and, as the court says, "in such a crude and inartistic manner as to be misleading and confusing to the operator, and it is not surprising that the operator, in the hurry of work, should have been guilty of a misconception of the correction intended." Commenting on the failure of the plaintiff to employ an expert proofreader, the court says: "The right of the plaintiff to operate his paper as economically as he sees fit can not be questioned, but if in the exercise of such economy he deprives his printer of the assistance and advantages which he should reasonably enjoy, this court will not find the printer at fault for discrepancies in his work and liable for losses suffered by plaintiff thereby."

The opinion concludes as follows: "Plaintiff having contributed to the error by his negligence and want of ordinary care, must suffer the loss for the error, for which the court finds him responsible. There was an error in the judgment of the lower court, subsequently affirmed by this court, which latter judgment upon rehearing is hereby set aside and reversed, and it is now ordered, adjudged and decreed that there be judgment in favor of the defendant and against the plaintiff, the plaintiff to pay costs in both courts."

In the olden time the boss would have fired the man, but now he sues him for the value of the ad.— and don't get it.

THE CURTIS POLICY ON PLATES.

We insist upon having nothing but original plates. If an advertiser wants a plate printed, the question is not "Is it good enough for the advertiser?" but "Is it good enough for our readers?" If an advertiser gives us electrotype matter we re-set every bit of it. We print from first principles, and if we have a press that doesn't do good work we throw it out. Speaking of plates, we have a department of our own where, if a man sends us a plate, we don't take it — even if it's an original — and send it to the composing-room, but we send it to the engraving-room. That cost us an average of one thousand dollars a month last year. We do it to make advertisers' cuts better. We spent that much money on the plates simply because it insured better printing. Any man here, engaged in job-printing, who will establish a standard and put his price on it, will get it. The best thing to do — and we do it — is to criticize your own work. We are the first critics. We decide whether the work is good — we don't wait for the advertiser or reader to call it "rotten." *We* know whether it is rotten or not. It is better to criticize your own work before the other fellow has a chance.— *E. W. Spaulding, of Curtis Publishing Company, before London Sphinx Club.*

"TURN AGAIN WHITTINGTON" ADVERTISING.

It isn't always the man with the loudest shout who makes the longest impression. The passer may turn his head at the sound of your whistle, but does he turn his feet? — *Mahin's Messenger.*



Photo by H. H. Bennett, Kilbourn, Wisconsin.

Engraved by Inland-Walton Engraving Co.

THE DEVIL'S ELBOW, DELLS OF THE WISCONSIN RIVER.

The INLAND PRINTER

(Entered at the Chicago Postoffice as second-class matter.)

A. H. McQUILKIN, EDITOR.

Published monthly by

THE INLAND PRINTER COMPANY

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P. R. HILTON, President. E. W. BEEDLE, Vice-President.
HARRY H. FLINN, Secretary. A. W. RATHBUN, Treasurer.

ADDRESS ALL COMMUNICATIONS TO THE INLAND PRINTER COMPANY.

NEW YORK OFFICE: Morton building, 110 to 116 Nassau street.
H. G. TICHENOR, Eastern Agent.

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THE INLAND PRINTER is issued promptly on the first of each month. It aims to furnish the latest and most authoritative information on all matters relating to the printing trades and allied industries. Contributions are solicited and prompt remittance made for all acceptable matter.

SUBSCRIPTION RATES.

One year, $3.00; six months, $1.50, payable always in advance. Sample copies, 30 cents; none free.

SUBSCRIPTIONS may be sent by express, draft, money order or registered letter. **WE CAN NOT USE CHECKS ON LOCAL BANKS UNLESS EXCHANGE IS ADDED.** Send draft on New York or Chicago. Make all remittances free of exchange, and payable to The Inland Printer Company. Currency forwarded in unregistered letters will be at sender's risk. Postage stamps are not desirable, but if necessary to remit them, one-cent stamps are preferred.

Foreign Subscriptions. — To countries within the postal union, postage prepaid, three dollars and eighty-five cents, or sixteen sbillings per annum, in advance. Make *foreign* money orders payable to The Inland Printer Company. No foreign postage stamps accepted, and no attention will be paid to postal-card requests for free samples.

IMPORTANT.— Foreign money orders received in the United States do not bear the name of the sender. Foreign subscribers should be careful to send letters of advice at same time remittance is sent to insure proper credit.

ADVERTISING RATES

Furnished on application. The value of THE INLAND PRINTER as an advertising medium is unquestioned. The character of the advertisements now in its columns, and the number of them, tell tbe whole story. Circulation considered, it is tbe cheapest trade journal in the United States to advertise in. Advertisements, to insure insertion in the issue of any month, should reach tbis office not later than the eighteenth of the month preceding.

In order to protect the interests of purchasers, advertiscrs of novelties, advertising devices, and all cash-with-order goods, are required to satisfy the management of this journal of tbeir intention to honestly fulfil the offers in their advertisements, and to tbat end samples of the thing or things advertised must accompany the application for advertising space.

THE INLAND PRINTER reserves the right to reject any advertisement for cause.

Single copies may be obtained from all news-dealers and typefoundries througbout the United States and Canada, and subscriptions may be made through the same agencies.

Patrons will confer a favor by sending us the names of responsible newsdealers who do not keep it on sale.

FOREIGN AGENTS.

W. H. BEERS, 170 Edmund street, Birmingham, England.
W. C. HORNE & SONS (Limited), 5 Torrens street, City Road, London, E. C., England.
JOHN HADDON & Co., Bouverie House, Salisbury square, Fleet street, London, E. C., England.
RAITHBY, LAWRENCE & Co. (Limited), Queen street, Leicester, England.
RAITHBY, LAWRENCE & Co. (Limited), 1 Imperial buildings, Ludgate Circus, London, E. C., England.
PENROSE & Co., 109 Farringdon Road, London, E. C., England.
G. R. McCOY & Co., 31-32 Eagle street, Holborn, London, England.
WM. DAWSON & SONS, Cannon House, Breams buildings, London, E. C., England.
ALEX. COWAN & SONS (Limited), General Agents, Melbourne, Sydney and Adelaide, Australia.
COWAN & Co., Wellington, New Zealand.
F. T. WIMBLE & Co., 87 Clarence street, Sydney, N. S. W.
G. HEDELER, Nürnbergerstrasse 18, Leipsic, Germany.
H. CALMELS, 150 Boulevard du Montparnasse, Paris, France.
JOHN DICKINSON & Co. (Limited), Capetown and Johannesburg, South Africa.
A. OUDSHOORN, 179 rue de Paris, Charenton, France.
JEAN VAN OVERSTRAETEN, 8 rue Joseph Stevens, Bruxelles, Belgium.

EDITORIAL NOTES.

SOMEHOW in the printing trades the "convention period" and the "silly season" have come to be regarded by many as synonymous terms.

THE Canadian legislators who voted to prohibit the publication and sale of Sunday papers in the Dominion probably had intimate knowledge of our coarsely conceived and horribly executed Sunday supplements.

THE magazine publishers are recognizing that the selling price is vital if they are to maintain the quality which insures life, and as a consequence many 10-cent monthlies have been "lifted" to the 15-cent column. While the selling price is not necessarily an indication of the worth of a newspaper, in a magazine it is the sure test of its value.

IT is worthy of comment here and of thought by the reader directly concerned that the more there is written on the question of effective advertising, the more attention will be paid to the necessity for "telling" typographical display. This augurs well for the development of the artistic side of typesetting and forecasts a demand for up-to-date material and live men to handle it.

AN official of Chicago Typographical Union, with a penchant for figures, presented statistics to show that the birth rate increased with the eight-hour day. Hardly had this become public property when President Roosevelt announced his intention to enforce the long-dormant eight-hour law. Can this be a mere coincidence, or is the statistician a psychological expert?

AT Limoges, France, the factory inspectors, with true Gallic regard for the weaker sex and police authorities, decided that females should not be employed as operators on Linotypes because the fumes arising from the pot were inimical to health. The employer interested appealed and found a court which came to the rescue of the new woman and the much-abused metal-pot by reversing the judgment of the minor officials.

IN almost every city the best advertising medium among daily papers is the one that carries the greatest amount of small or classified advertising. The reason is obvious; the presence of these advertisements proves that the paper is bought because of its value as such, and not because it exploits some one-eyed idea or makes a specialty of a certain class of news, or has

"claims" on a party or faction, and such buyers read the whole paper. The sheet to advertise in is the one that is read, and the small-ad. patronage is proof of that in daily, weekly or monthly.

THE billposters having heard the call of the times, resolved not to handle any more bills picturing Auld Reekie, because, forsooth, the devil is not an elevating subject. The queens of burlesque and the amazonian marchers are not tabooed, so the knights of the paste-brush evidently believe in "moral reform" at the least possible cost. Business principles are not forgotten by the billposters' organization even in its loftiest flights of idealism.

WHILE the average publisher is on a continual hunt for advertising patronage, there is the occasional rare and happy bird who rejects advertisements for inscrutable reasons. The prosperous Canadian daily that does not accept patronage from theatrical or tobacco men is put in the shade by a Vermont neighbor. This publisher is so high-principled or comfortably circumstanced, or both, that he refuses automobile advertising, irrespective of the propelling power of the machine. Perhaps this is a subtle way of attesting his friendship for the horses which readers of the paper breed and sell.

IN the "Discursions of a Retired Printer" in the July issue of THE INLAND PRINTER the writer makes an eloquent and convincing plea for the organization of an American Typographical Historical Society. The suggestion that the headquarters of such a society, premises, library and museum should be located in New York city is eminently fitting. The severe utilitarian who may see in this proposal merely the desires of the esthete and the dilletante can by a little closer consideration of the opportunities made possible by such an organization have cause to modify these views if not completely reverse them. THE INLAND PRINTER therefore will be very glad to have the views of those opposed to this proposition, so that a text may be provided on which to base a representation of the practical and utilitarian value of the enterprise.

THIS is the month when the mercury in the tube "tapers off" its high-jinks indiscretions, and atmospheric conditions no longer play havoc with paper and rollers and man's temper and efficiency. It is also the period when the buyers of printing begin to bestir themselves. Custom and nature are in accord, and so the printer who is wise will now launch plans to increase his business by going after his share of the new work which will be thrown on the market in the next six or eight months. The employee who is contemplating "bettering" himself will cast about for the means to do so, and the youthful one or newcomer who has heretofore been a casual "hand" will throw back his shoulders and resolve to win his spurs so that he may appear on the pay-roll regularly hereafter. The harvest time is upon us, and those who would garner the grain must sharpen their scythes.

MUCH of the literature encouraging manufacturers and dealers to advertise their wares is written by professional ad.-writers — men paid to stimulate advertising. When the truisms of the ad.-writer are uttered by such men as Governor Folk, of Missouri, however, the reading public begins to sit up and take notice. In an address before the retail merchants of Missouri at Jefferson City, Missouri, recently, Governor Folk spoke against the mail-order business and favored advertising in the town papers. He said, in part: "We are proud of our splendid cities, and we want them to increase in wealth and population, and we also want our country towns to grow. We wish the city merchants to build up, but we also desire the country merchants to prosper. I do not believe in the mail-order citizen. If a place is good enough for a man to live in and to make his money in, it is good enough for him to spend his money. No merchant can succeed without advertising in one way or another. Patronize your town papers, build them up, and they will build the town up and build you up increased trade and greater opportunities. Do not be afraid that business is going to be hurt by the recent exposures of wrongdoing in the commercial world. No man who is doing an honest business can be injured by the light. All business will be better for the cleansing process it is going through and for the stamping out of evil."

THE practice of giving and taking tips, bribes or commissions, or whatever one may term it, is attracting the attention of the solons across the Atlantic. The moral effect of this will prove beneficial in that such transactions will be officially given a very ugly but quite proper name. There is pending before the British Parliament such a measure, called "the prevention of corruption bill," which is certainly plain English, and the verbiage of the act is also barren of frills, it providing "that if any agent corruptly accepts or obtains any gift for doing, or forbearing to do, any act in relation to his principal's business, he shall be deemed guilty of a misdemeanor, and any person making such a gift shall be equally guilty."

The penalty on summary conviction is fixed at $250, or four months' imprisonment, or both; if an indictment is brought and the accused found guilty, the penalty is increased to $2,500 and to two years' immunity from the seductive temptation of graft. Making due allowance for the way in which such stories "swell," on their way across the seas, it would seem this offense is more generally practiced on the other side than with us, though we are by no means immaculate. The prevalence of the notion that a man was entitled to "his bit," as we recall one British pressman having asserted, probably moved the attorney-general to oppose the elimination of the word "corruptly." However, the ban is put on a pernicious system, and to the innate respect for good law and the severity of the British courts may be left the work of eradicating the evil, as our exchanges are confident the measure will find its way to the statute books.



Photo by H. H. Bennett, Kilbourn, Wisconsin. Engraved by Inland-Walton Engraving Co.

THE NAVY YARD, DELLS OF THE WISCONSIN RIVER.

THIS is surely a year of war and rumors of war in the craft. It was ushered in with our own unpleasantness, which bids fair to leave its marks for many, many moons. Then followed the eruption in Paris, France; sharp on the heels of that came word of a threatened general strike in London, which gave promise of involving as many men as the others combined, which is a forceful reminder of the greatness of London. The dispute there had to do with the hours of labor also, the underlying cause being the limitation of overtime. For several years the employers' and employees' organizations had been drifting apart until lately it became almost impossible to settle any important differences through means of conferences. A dispute arose with a firm which resulted in a lockout that the men thought was approved if not instigated by the employers' association. At a general meeting of the society, the officials explained that the union was called upon to reply to the first gun of what in their opinion was an organized attack. This led to the adoption by unanimous vote of a resolution instructing all members to give two weeks' notice of their intention to quit work, subject to the result of strike-vote ballot that was to be taken. The newspaper publishers then broke away from the employers' association and opened negotiations with the union, which eventuated in a settlement of the then pending lockout and an agreement which binds the newspaper publishers to abstain from membership in the old employers' association, but pledges the union to treat with that organization on the burning question of overtime. At this distance it seems that the London journeymen used their power to strike with consummate tact and skill. They have divided the forces of the employ-

ers, and stipulated that they shall remain so, which is a decided tactical and practical advantage to the men in such a situation. And all this without taking a final strike vote, which is away ahead of striking. It is to be hoped the demonstration will pave the way to an amicable settlement of the questions which have disturbed London printerdom. Meanwhile, the society is to be complimented on the quality of leadership displayed by its officials.

LOAFING AND DEBT.

THE apprentice, the young journeyman and the inexperienced proprietor have ever been the especial wards of THE INLAND PRINTER. To say a seasonable word about pitfalls or in a kindly way direct attention to a detrimental tendency to those on the threshold of a career is indeed a privilege. And to hear that the seed has fallen on fertile soil and borne fruit, even in small measure, is great compensation for much effort and many failures. The present purpose is to speak to young wage-earners on two evils that beset them — both as old as man, but one of which has taken on a new and alluring guise — laziness and going into debt.

Let us speak on the more general sin — for it is a sin — first. Judging from observation, far too many young men are living in constant fear that they will do too much or give too great a return for the wages they receive. Those so minded straightway set about devising ways and means to shirk work in as respectable a manner as may be and to "loaf" or "soldier" in comfort and with pleasure by enjoying a siesta smoke in some unthought-of-out-of-the-way corner, which requires a merry hide-and-seek game with the "old man." If such a trifler is admonished or rebuked by a serious-minded fellow workman, in nine cases out of ten he flatters himself he is fully justified and has said the last word when he can truthfully retort, "I do as much work as so-and-so and do it as well as Thingumbob. You get no thanks for what you do here anyhow; the more you accomplish, the more the firm expects, but the pay envelope is never fattened." The plaint in this is all too true, for notwithstanding protestations and exhortations, merit that does not make itself known is often left at the post. While this lack of recognition affects the worker, it is not all, nor should it influence his conduct to the extent of inducing him to act dishonestly, for it is dishonest not to work to the best of one's ability for the stipulated wage. To put it on a low plane, it is the worker's business to so shape affairs that he will force due recognition. He will never do it by sulking in his tent. That policy is not only a barrier to his progress as a workman, but fastens upon him handicaps which will weight him so heavily that escape from the unappreciative environment will be impossible. Besides losing interest in what he has to do, he will learn to abhor work and become slothful. He will, in short, possess no visible merit worthy of recognition. Nothing more deadly can assail a living being than the habit of thought which justifies the practice of shirking or loafing.

If the young man — or elderly man, for that matter — wants to compel recognition, he should keep on plodding, doing as faithfully and as well as he can what comes in his way. While so engaged he is moving forward mentally and materially and hastening the day when he will be better equipped to say good-by to the "old man," even if his uprightness and perseverance have not attracted a better position. There is nothing sound in the reasoning which justifies loafing; it leads to deterioration and is not even a means of wreaking vengeance on the "old man," who may be making an honest mistake after all. Loafing will surely justify his view, and as the stagnation and loss of character become more apparent, he will congratulate himself on his good judgment at not having helped so incapable a fellow. Honesty and energy will come into their own eventually and when they do, the "old man" will realize his mistake, which will be revenge enough for the normal-minded man — if normal-minded people hanker after their "evens." Laziness and honest energy are opposites. One hurts most and the other benefits most those who practice it. One is so wholly wrong that indulgence is never justified, and the other so absolutely right that no irritating circumstance justifies departure from it.

Every one knows the wisdom there is in the trite admonitions about the necessity of keeping out of debt, if he with a stated limited income would enjoy peace of mind. Man's wants are illimitable, while for the mass of mankind the means of supplying them are limited, and from the first week's pay to the last doctor's bill it is a struggle to keep above water. As men become wiser and know better how to handle such problems, the temptations multiply. At one time if a workingman wished to take on a load of debt he had to go out and seek the privilege and show that he was a little out of the ordinary run. Now, armies of smooth, glib-tongued canvassers parade up and down the country ferreting out the inexperienced and improvident, urging them to purchase all manner of articles on the installment plan. This is pictured as an investment or a sort of home-made savings-bank scheme, whereby the victim is just so much ahead at the end of the

easy payment route and not at all like going into debt. But it is debt — and of the most burdensome kind, under which the one-time optimistic investor staggers and stumbles as the ubiquitous collector becomes the ogre of his every pay-day. Few of the victims escape, for the snares and wiles of this class of salesman are many and not always scrupulous, as it is to his interest to have the easy payments continue forever and a day. In cases of necessity, this system has proven beneficial, but it is little short of a curse when it is used as a lure to induce young men to bedeck themselves in jewelry and precious stones at an enormous advance on the regular price. A debt of this kind is unusually depressing. In time the victim realizes there was no real justification for its contraction; that he was swindled in the transaction, and that the pleasures which the baubles afforded were short-lived. Brooding on such thoughts tends to make one dull and unfit for the serious business of life. In some temperaments the evil effects are as marked as late hours and dissipation. Young man, if you are in favor of a short work-day and desire the hours to pass quickly, pleasantly and profitably, avoid loafing and debt. Either of them can make the day a longer one than any employer would attempt to establish. An untroubled mind is a better jewel than any installment house has in its stock.

W. B. P.

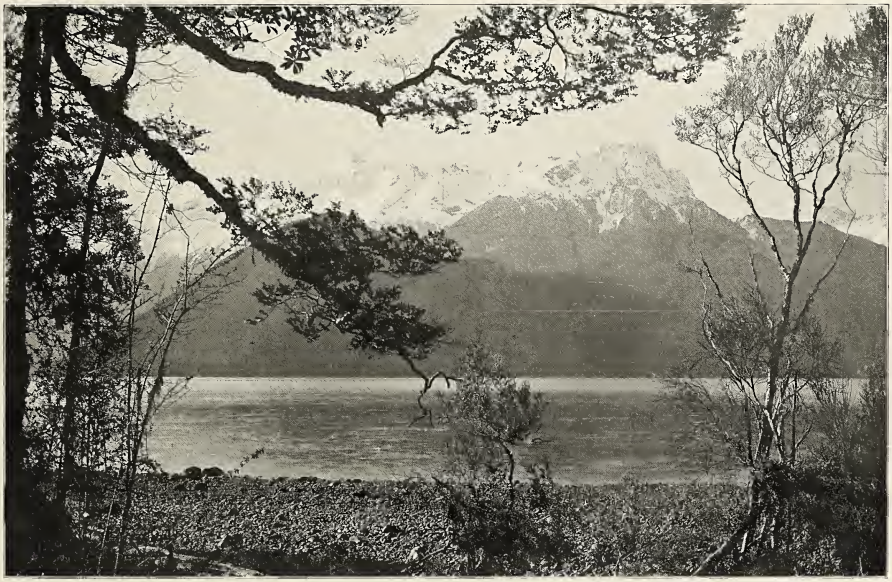


Photo by Count I. F. S. Von Rome. MOUNT LARGS, HEAD OF LAKE TE ANAU.

LEATHER AND CLOTH BOOKBINDINGS.

A RECENT number of the *Journal of the Society of Arts*, London, has an interesting report on bookbindings from which we make extracts. The leather bookbinding and gilt tooling of some twenty years ago was almost exclusively a trade; now it is practiced, more perhaps than any other, by the artist-craftsman, amateur or quasi-amateur. This broadening of the lines has had a material effect, not alone in the scope of craftsmen, as between professionals and amateurs, but also in a radical departure or change in style of the binding itself.

Mr. Cobden-Sanderson, who started his bindery about 1886, could hardly have dreamed of the changes which have actually taken place and which, by virtue of their present activity, possess a potentiality that, for weal or for woe, will produce marked effects on the future conditions of the craft. The present-day flat-backs are deplored and the well-rounded ones of former days extolled. It is pointed out that though in some instances the flat-backs are more pleasing to look at, yet the practical mind wonders how the front edges will appear after many years of use. A more remarkable change has taken place in the leather that is used for binding, which to a large degree shows the effects of the stimulus of the Society of Arts' report on the stability of various kinds of leather, methods of tanning, etc. A realization of the

perishable nature of much of the leather that had been used also contributed to the change, which has practically discarded treed calf and reduced the demand for ordinary calf and morocco which are now frequently replaced by niger leather.

Ornamentation is now most usually tooled and gilding and plain colors have ousted marbled edges. "Elaborately tooled covers are, of course, still designed and executed both by the old firms and the newer craftsmen, but there is a great deal of very simple leather binding being done in the way of covers which are merely lettered, or on which the design is a simple diaper or a sprig, repeated either more or less haphazard or on more formal geometric lines, and this work is absolutely different from the simple binding of twenty years ago. Its simplicity may be sometimes rather affected. Its price is often high enough to make the would-be purchaser pause — a great deal higher than that of simple trade binding — but within certain confined limits it is tasteful, and it was some time ago original. The astonishing thing is that it is not more individual."

Of course it is well known that bookbinders' tools are very circumscribed in their range of designs or patterns and to this extent put the designer in many a quandary as to how to utilize material of such limited scope. The astonishing matter, however, is that this very limitation has not called out a virility and originality of conception that would be able to develop a greater appreciation and demand from the purchasing public, which is extraordinarily keen on getting its money's worth. The fact seems to remain that the old binders, with fewer tools, succeeded in producing more effective designs than are generally presented to-day.

The changes that have taken place in cloth bindings have not been as numerous, though, as those which have encompassed the cloth-covered and paper-wrapper books. In the case of cheap novels, the change is largely due to the marvelous developments in photographic reproduction processes which make possible the execution of cheap picture-covers, so that this phase of the question requires but slight notice *en passant*.

Cloth cases evidence a change in taste and aim; blind stamping, which was once the device *par excellence* for ornamentation on cloth covers, has almost disappeared; likewise gilt stamping, which went hand in hand with more ambitious books, is now rarely met with except on the backs of the volumes. The whole tendency seems to be to shift the ornaments from the side to the back, so that it is not at all uncommon to see an elaborately ornamented back with quite plain sides. This is compensated for in part by the suggestion which such a course of decoration implies that the book is intended for a bookcase shelf, rather than form a pretense of intellectuality as it lies on my lady's drawing-room table. The cloth itself, it is noted, has changed from a ribbed, grained or pebbled surface to one that is severely smooth and plain. A few large concerns, however, do yet use an "art linen," finely grained (not in leather imitation) that comes in many pleasing shades, and some of them are even prettier than any seen some years ago. But it is to be doubted if there can be found such sterling wearing qualities in any of the more modern fabrics as were present in that same grained cloth which we have come to consider a bit *passé*, or old-fashioned looking.

The printing of colored devices on cloth-covered books is of comparatively recent origin. It is attractive and many ink combinations can now be produced that could not have been executed fifteen years ago. This is the case of brown, dark blue and green inks on white. The effect of white and very pale inks on dark grounds would be more happy if not so uncertain. A streak of irregularity runs through an edition that is anything but pleasing. This is due to the limitations of the printing process, which labors under the disadvantage that accrues when a sloppy appearance is produced by the too liberal use of ink, which, in its "overdone" dress, contrasts unpleasantly with the contra effect of an imprint that is short the requisite amount of ink in the second impression and that allows the under color to, figuratively, make grimaces of exultation at not being suppressed or placed in proper subjection.

One of the most effective color schemes is the printing of white on dark cloth covers. Strictly speaking, such printing is never successful, because white ink can never be made to cover a cloth background. The result is a grayish, uneven and streaky impression, giving the whole a tawdry appearance. This trouble can be eliminated by using white leaf (a German importation) which, when laid on and stamped, presents a hard, smooth, non-porous surface. Colored foil is also made in various shades, giving the cloth binder ample mediums for smart cover decorations. Gold leaf is not a proper material to use on cloth covers, except for title stamping. A flashy cover does not recommend the contents of a book to the seeker for truth or knowledge.

I BELIEVE that no one can harm us but ourselves; that sin is misdirected energy; that there is no devil but fear; and that the universe is planned for good. I believe that work is a blessing, that winter is as necessary as summer, that night is as useful as day, that Death is a manifestation of Life, and just as good. I believe in the Now and Here. I believe in You, and I believe in a power that is in Ourselves that makes for righteousness.— *Elbert Hubbard in the Philistine.*



Color Plates and Printing by
The United States Colortype Co.
Denver, Colo.

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THE WILLIAMSON-HAFFNER CO., DENVER

COW-PUNCHER GIRL.

Printed with Photo Chromic Colors
Manufactured by
The Ault & Wiborg Company,
Cincinnati, New York, Chicago,
St. Louis, Toronto, London.

STOCK WORK.

IT has frequently been said that there is nothing in the nature of stock work that can be produced by the average printery. In a sense that is true. But in another sense that is equally applicable it is not true. Eliminate for a moment all discussion of those offices dealing in such specialties as calendars and calendar pads; or labels for certain unchanging forms; or anything of that sort. These are not average offices. An average office as the term is here used is an office, large or small, taking a wide range of work and producing each order to fill a definite request for a certain piece of work from a particular customer. That, you say, negatives at once any possibility of the production of stock work. It does, yes, if you maintain that stock work consists solely in the making of goods to be kept on hand, in stock, for sale to whoever desires them. No small general printer can manufacture stock of that sort. The very nature of the business prevents it.

But there is another distinction between stock orders and special orders, more fully recognized in other lines than in printing, perhaps, yet equally manifest there if sought. This is it. Of all the work that comes into an office, a proportion that will vary with the season but is always large consists of reprint work whose general if not exact style must be followed, and of work that requires very little laying out or preparation. This is stock work, in precisely the same sense that a standard machine, produced in all parts from regular drawings or patterns, is a stock machine and fills a stock order, whether it chance that the machine has been built and is simply awaiting a purchaser, or whether it is to be built after having been ordered. The price is fixed for all duplicates of this stock machine; it matters not whether manufacture or sale should happen to have precedence. So, it matters not whether a bill-head be for Tom Jones or Dick Brown; the price is fixed, practically, so soon as it becomes apparent that Jones or Brown desires a standard paper and a standard grade of composition and presswork.



Photo by Count I. F. S. Von Rome. CATHEDRAL PEAKS, LAKE MANAPOURI.

And it will be seen, I think, that, taking the country by and large, there's not so much difference between printers' prices as regards these standard things, these stock orders. Great divergence there can not be, save under unusual circumstances. Of course, so soon as a cheaper paper is asked, or a costlier, than that which has come to be regarded as standard, the price will decrease or increase, and there may uncertainty and variation creep in to disturb the balance of price, of profit and loss.

This, however, is of comparatively slight importance. There is greater opportunity by far for variation of price, and hence greater oppor-

tunity to make or to lose money, when there come what may fairly be termed special orders. These in the world of machinery are frequent, but not in the majority. In the world of printing they are largely in the majority. Included herein are all things requiring special preparation; special designing of type or cuts or borders; special harmonizing of inks or paper; special writing or revision of copy; special attention to any detail of manufacture; in a word, whatever is analogous to the "special order" of the machine shop, where standard patterns or designs can not be used wholly or in part.

Commercial stationery and advertising literature offer fields particularly adapted to the production of special orders for printing in this sense. There is scarcely a "standard form" that will be entirely acceptable to the printer who specializes the production of the better grades of commercial printing, or to the customer who comes to him for the procurement of such work. There must be a change in the design, or in the color or texture of paper, or in shade of ink, to correspond to the needs of the particular order then in hand. This falls into line with the "special drawings" or "special patterns" of the foundry or machine shop, and affords best reason for making additional charge for this sort of stationery, besides the standard charge for paper and printing.

Sometimes, 'tis true, the especially designed stationery is so much simpler and neater than that which preceded it, that the actual cost of production falls below that of the standard. Very good; but don't omit a charge for making it so. Allow, if you must, a discount from the standard price for such part thereof as may not have been included in the mechanical cost; and add thereto a reasonable fee for the skill and time employed in bringing the copy into this acceptable shape.

And as for the wider field of advertising literature, there's scarcely a booklet or folder or announcement or card that does not demand just this sort of special treatment. Every printing house that is at all successful recognizes the necessity of this, and is prepared to meet it, to greater or less extent. And herein is the excuse alleged for most surprising variations in quoted prices on the same job. Paper and ink and mechanical labor cost practically the same in all offices bidding; percentage of profit can not safely vary largely. Hence, such variation must be due in great measure to difference in charges for the work of laying out and preparing the matter for the printer. Upon this depends in no small degree the appearance of the finished job — the *motif*, if you please, of the composition.

Consider the production of a new piece of machinery by a machine shop; consider the drawings and blue-prints; the nice calculations of measurements and distances and weights; the experimentation that is sometimes required; then consider the cost that must be made and paid. Yet none objects; it is the common thing, the expectation, that charges of this sort shall be imposed and met.

On the other hand, the side of printing, consider an odd-sized booklet, for instance. It must be so planned as to cut advantageously from regular stock, unless indeed the paper can be made to order of exactly the right size; body and style of type, both for text and for headings, and position of type-page on sheet, must be weighed; character and quantity of cuts decided upon, unless arbitrarily fixed; weight of paper, and possibly its tint, decided; the cover arranged, with its character and ornamentation, and countless other details. A charge for this? Most assuredly. But how much? There's the pinch.

Suppose this arranging to be done by the proprietor. He is but too apt to consider that his time has been or will be paid for by the profit on some other job, and to think that he can afford to "throw in" the time and toil given to the arranging of a booklet different from others and perhaps better. Well, "throwing in" always was looked upon as so much lost time, and in this case it certainly is dead loss. Why, this proprietor pays himself salary, does he not? He knows what his time costs the office per hour, does he not? He knows what proportion of profit and general expense to add to his own time if on occasion he goes into the work-room to set a stickful or feed a thousand cards, does he not? Unquestionably. But that work can be done by his men, or even by an apprentice, perhaps fully as well. This task of laying out a booklet is something which presumably the proprietor can do better than any of his employees. Therefore, he should charge for so doing not only the value of his own time as a workman, but, more, the value of his time as an expert. If by his skill, native or acquired, he can produce from types and paper effects that are more pleasing and more artistic, he should receive for that skill added compensation. He should not fear to do this; he should smilingly insist on being paid for what he knows as fully and as generously as the lawyer, the physician or other professional man.

Payment for what he knows! Does not that appeal to every printer who worries over the balance-sheet and the pay-roll, who sometimes wishes he were back at the press or the case, who occasionally doubts his wisdom in "getting into business" and who yet is a good printer and good business man? But — he doesn't get paid for what he knows. He seeks payment for what he

does, rightly. By persistence, he receives it, mostly. Therein he is no whit better than the workman he employs. When he seeks, and obtains, payment for what he knows, then is he indeed on a different plane, a better plane, a more profitable plane.

This knowledge is frequently in the line of added skill in the preparation or arrangement of copy for his customers. This is the sort of knowledge for which he is least likely to ask compensation. This also is that for which compensation is most justly due, and from which, with proper effort, compensation can easily be collected. This knowledge it is which perhaps most sharply differentiates "stock orders" for printing from "special orders" and makes these special orders profitable to the printer and pleasing to the customer. R. C. M.



Photo by Count I. F. S. Von Rome.
ALPINE CONSOLS, KELEY AND CASEY, AND GREAT CENTRAL IN COURSE OF CONSTRUCTION.

TRUTH WILL OUT.

"Got the job o' business cards done fur Doc. Piller?" asked the country editor. "Ya'as," replied his foreman, "it's done, but Hi made a leetle mistake a-settin' it up. Mebbe Doc'll kick, but I reckon it ain't so fur wrong." "W'at is it?" "Hi made it 'Prescriptions Carefully Confounded." — *Philadelphia Press.*

KNOWLEDGE consists in having a stenographer who knows where to find the thing.— *Elbert Hubbard.*

POSTAL REFORM.

THE approach of the Congressional elections gives life to the never-ceasing demand for postal reform. The innovations proposed range all the way from a demand for a postal telegraph system and savings banks to an effort to establish one-cent postage and wipe out the deficit by a new classification of mail matter. It is not our province to express an opinion on reforms of the greater magnitude, but among the schemes for reclassification one, if not all, of them has a tendency to affect printers and kindred craftsmen, but more especially the former. It is, therefore, worth while for those interested to investigate the matter thoroughly before committing themselves to a movement that may react to the detriment of the public and the craft.

The desire for one-cent postage for correspondence is a natural one and mere statement of such purpose will make a strong appeal to the average business man and even the citizen whose postoffice expenditures are overshadowed by his outlay for matches. Passing up the convincing arguments advanced by the advocates of this — superficially at least — desirable change, let us look into the price at which it can be secured. To place sealed letters on the minimum basis inevitably spells either larger deficits or a compensatory

increase on other classes of mail matter. Some devoted one-centers would apparently saddle the burden on what is now designated as second and third-class matter — newspapers and periodicals and miscellaneous printed matter. The two first-named pay one cent for four ounces and the last-named twice as much. The one-centers figure that this is a tremendous subsidy to the printer and publisher and contend that they should be compelled to pay at the proposed rate of one cent for each ounce. As every one knows, the preferential was established in this and other countries not for the purpose of giving a subvention to publishers and printers, but because through them is carried to completion the great educational work which the immense grants to the public-school system has only begun. Nothing has been more abundantly proved than that this purpose has been attained, and also that the saving in postage has gone into the pocket of the public and not of the publisher and printer — if not always in a reduction of price, then in what was much better — improved quality or greater bulk. Competition has been too keen to permit of any of the increment remaining with the producer; so keen, in fact, as to make him a mere incident.

To make such a change in the postal rates now would be a great hardship to thousands of printers. Prices are established on the basis of second-class rates and it is a peculiarity of the publishing trade that it is only the rare publication that can increase its subscription rates. The public is educated to look for reductions, and is even speculating on the possibility of getting mental pabulum free. So, if the publisher can not make himself whole by assessing the subscriber for his enhanced postage, he must turn his attention to the advertiser. As the land surveyors say, this brings us "to the place of beginning," for be it known that the campaigns for lower letter postage and higher rates on newspapers purports to be in the interest of business men for the purpose of facilitating business correspondence. And what, forsooth, fosters such correspondence more than advertising and newspapers? In this way, the commercial classes are amply repaid for their share of the alleged subsidy on which publishers — rich and poor, old and young — are said to have waxed fat. When one looks all around it, the element of injustice does not loom large in this transaction.

Excepting commercial houses which do not advertise, all those who patronize printers benefit directly by the so-called "subsidy," and if the rearrangement is effected, the inexorable laws of the trade will make the public — and not the average publisher — pay either in inferior service or increased rates, and especially advertising rates. To our mind, printers should oppose the proposed change from a purely business standpoint, because, while disturbing and mischievous, it will not work real relief to any substantial number. If the "subsidy" operated solely to benefit publishers, as the reformers seem to think, its elimination would result in a decrease of printed matter, which would not be conducive to the public welfare. Fortunately, the influence of modern governments is thrown on the other side of the scale.

Apropos of the postoffice and its much-talked-of deficit, Congressman Foster of Vermont denies its actual existence and points to a fact seldom remembered by critics of that department. He declares that if allowance were made for the cost of distributing Uncle Sam's mail — about $20,000,000 yearly — the Postoffice Department would not only show a handsome surplus, but be the one self-sustaining governmental department.

INCREASE IN THE PRINTING TRADE.

IN a general way we all know the printing trade has gone forward by leaps and bounds during the past five years. The New York *Sun* gives some idea of what the increase has been in figures compiled from advance information of the census of manufacturers for 1905. The following table tells an interesting story:

	TOTAL NUMBER.	INCREASE SINCE 1900.
Establishments	26,427	4,115
Capital	$384,021,359	$91,504,287
Officials, clerks, etc.	64,920	27,121
Yearly salaries	$62,727,582	$26,636,863
Wage-earners	185,190	22,298
Yearly wages	$108,871,748	$24,631,794
General expenses	102,469,279	46,571,350
Materials used	123,474,330	36,618,040
Yearly receipts	496,087,109	49,032,059

The increases speak for themselves, but it compels one to raise his eyebrows and wonder why it required 27,121 officials, clerks, etc., to look after the increased production of the additional 22,298 wage-earners, by which is probably meant productive workers. This is doubtless explained in part by the formation of companies with their staffs of officials — active and passive, in the modern methods of conducting business, necessitating the employment of canvassers, stenographers and clerks, whose chief duty it is to get customers and keep them by catering to their wishes, and finally, in the admittedly greatly enhanced output of the wage-earners, of which the table gives us no inkling. The figures also remind us that the spokesmen of the various trade organizations have pointed with pride to their swelling lists of membership, and we have listened with respectful attention to their exposition of just what particular stroke of policy produced this or

that result, and were possibly carried away by the impressive earnestness of the belief in their methods. When we look over the field generally and compare the "giant strides of the organization" — favorite term of the plebeian and plutocrat — with the expansion of the business, we find that the organizations have not acquired more than the natural increase, if they have done that.

A majority of us would say, if asked offhand, that the receipts from regularly issued publications were many times greater than those from book and jobwork and that an overwhelming volume of this came from advertising. This, like many other popular notions, though not absolutely wrong, is shown to be a gross exaggeration when confronted by the laboriously compiled figures of the census men. Of the yearly receipts, in 1904, of $496,000,000, not less than $239,000,000 was from book and job work, while of the balance, the publisher received $146,000,000 from advertisers and $111,000,000 from subscribers. Surface indications to the contrary, the subscription rate still remains, all elements considered, the important factor in the American publishing world.

The synopsis does not give the amount spent in supplies, machinery, etc., but the newspapers and periodicals handed over to papermakers the enormous sum of more than $47,200,000 for their product. This was used by 21,400 publications, which are classified as follows:

		INCREASE OVER 1900.
News, political and family	16,516	1,649
Religious	1,287	335
Trade journals	627	107
Fraternal	450	250
Commercial and financial	364	174
Agricultural, dairy, etc	360	53
All others	1,796	606
Totals	21,400	3,174

The total regular circulation of the 21,400 publications was 146,503,828 — nearly two for each person in the country. On weekdays the 2,455 dailies had a circulation of 19,624,757, while the Sunday editions circulated 11,539,521 copies, which will hardly harmonize with the preconceived ideas of many dwellers in the larger cities and towns, who find it impossible to escape the ubiquitous Sunday paper, for it boldly stares at them from every nook and corner. But the daily paper, with all its wonderful facilities and marvelous cheapness, has not yet driven its parents — the semi-weekly and weekly — from the field. The former issued 2,937,464 and the latter 36,741,597 on their respective publication days. The monthlies loomed large with a circulation of 62,867,536, the quarterlies reported 9,709,627, and all other publications 3,803,326 copies. All of which demonstrates that the craft is not moribund, but full of life and life-giving energy.



Photo by Count I. F. S. Von Rome. WELLINGTON, THE CAPITAL OF NEW ZEALAND.

Written for THE INLAND PRINTER.

PHYSICAL CHARACTERISTICS OF RELIEF ENGRAVINGS, ESPECIALLY RELATING TO HALF-TONES.

NO. VII.— BY N. S. AMSTUTZ.*



IN the August number reference was made to the so-called "psycho-physical law," or the relation of objective stimulus to subjective sensation; since then some preliminary experiments have been carried out to ascertain to what extent various *rates* of exposure are practically related to gradation, in forming tonal scales. Three tonal scales have been made at the same *total* exposure, but under varying conditions as to rate, each scale being submitted to the same source of illumination.

The half-tone negatives were made of all three scales at the same time and the enamel prints were also made at the same moment, so as to eliminate any variable factor in treatment of the negatives or enamel prints, and finally the etchings were made simultaneously in perchloride of iron known as "new iron." The data relating to the negative, etching and other conditions are given in an explanatory note accompanying the figures.

The three scales are listed under Fig. 47, the first one being a scale in which the exposure rate in making the printing-out paper print was proportional to an arithmetic progression; the middle scale exposure was made proportional to a logarithmic rate of change. In both of these scales the rate of progression was variable; in the top one conforming to a plane arithmetic, and in the second to a plane logarithmic spiral. The last scale was made at a uniform rate, proportional to the unvarying rotation of a concentric circle, comprising a parallel spindle. The manner of producing these scales is believed to be novel in some of its features. An ordinary printing frame was taken and used while standing on edge, and cardboard runways or grooves were formed vertically along the sides of the frame; in these grooves a shutter made of black paper was caused to slide freely up and down; the shutter was slightly weighted by a short length of printers' brass rule, which was attached by means of gummed labels to the bottom. An eyelet was formed at the upper end and a string fastened therein by means of which the shutter was slowly raised by a simple clockwork motor and attached reducing gear.

The string which supported the shutter was led over a small pulley and then to an intermediate shaft which was formed with an attaching screw at one end thereof; this shaft was driven by a graphophone clockwork motor having a pulley on its spring-barrel shaft and a regulating speed governor. The total time of travel, between two extremes, of the shutter movement was carefully noted, and a sheet of solio paper inserted in the frame under clear glass, the shutter placed in the grooves, its lower edge just flush with the inner edge of the printing frame, the whole six and one-half inches from a 10-ampere direct-current enclosed type of arc lamp operating on a 110-volt circuit, the motor started and the shutter was slowly raised, gradually exposing the sensitive paper to the arc lamp for 4½ minutes.

For the upper scale a grooved spiral (A, Fig. 48) was placed on the intermediate shaft, and one end of the shutter string fastened to the point of shortest radius at *a;* as the shaft slowly rotated the string followed the groove at a gradually increasing rate of speed, because the radius of the spiral increased arithmetically. At the end of one revolution the shutter stood at its extreme height and the exposure was complete; the length of time required to raise the shutter to a similar height for all three scales was the same, and it should be stated that the solio prints of the three exposures were all toned simultaneously so as to cancel all undesirable variable factors.

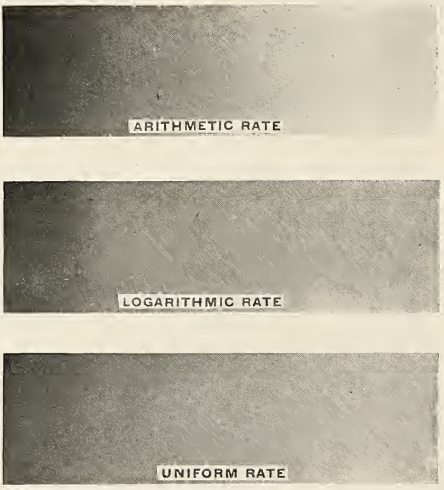


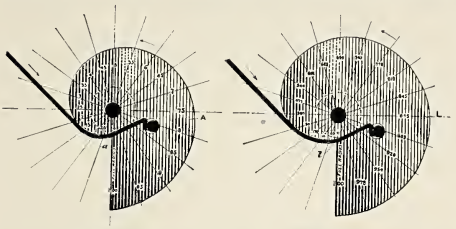
FIG. 47.— 150-line ordinary flat etches, at 32 minutes, of original tona scales having had varying rates of exposure. The half-tone negative received a "flash" of 1¾ minutes, with ⅛″ stop, a straight time exposure of 6 minutes with $\frac{5}{16}$″ stop, and a high-light exposure of 2 minutes with $\frac{11}{16}$″ stop; all stops being round.

At the first quarter circumference of the spiral *A* the radius is one-fourth of the whole, at the half it is one-half, and at the three-quarter position it is three-quarters of the entire radius range. If this spiral is developed into a plane it will be rep-

* Member of the Royal Photographic Society and Society of Arts, London; and Associate Member American Institute of Electrical Engineers.

resented by a straight line, which is an indication of a uniform rate of acceleration.

The middle scale was formed by placing a logarithmic spiral (*L*, Fig. 48,) on the intermediate shaft, whose radius also reached its maxi-



ARITHMETIC. LOGARITHMIC.

Fig. 48.— Showing diagrams of variable rate spirals. The figures show shorter radii than the full or normal radius.

mum in one circumference, but its intermediate values are proportional to the logarithm of each of the divisions into which the circumference was divided in forming the spiral. The shutter string was fastened at *l* and used in the same way as for the first scale, and one revolution was produced in the same time. The length of the spiral was also identical, so that the shutter moved through a like distance. The third scale was formed by allowing the string to wind onto a parallel spindle, the coils lying side by side. The speed was so regulated that the shutter moved the fixed length of the other scales in the same time. In this scale there was no change in rate.

The effect of the spirals is to prolong the exposure in the darker portion of the scales in comparison to the one made without a modified rate. Only a slight difference is apparent in the scales, as formed on printing-out paper itself, the "spiral" scales being slightly darker in the shadows. There must of course be a difference, but the reproductions show it to have no practical bearing on the Fechner law, or conversely this law does not seem to have any bearing on ordinary black-and-white work found outside of the finest of laboratory experiments. Fig. 48 shows diagrams of the spirals which were used in these experiments. Since the modified rates of exposure show no practical effects they may be dismissed.

The reason for going into this matter is found in the bearing such modifications might have been thought to have on the production of coördinate test etchings which are intended to show all possible changes in tonalities and the effects of various etching periods on the interpretation of such tonal gradations into printing plates. If there was a question as to the integrity of the production of the various tone gradations the value of the practical application of the deductions would be lost.

A coördinate test etching is one in which tone gradations occur at right angles to variations of time the acid has acted on the plate. Such a test etching for each screen number can be made by any process-worker, and from it it is possible to at once see what change has come into any tone value at the end of any number of minutes in the acid. If the specific gravity of the acid and its temperature is noted, and the negative is preserved, the most valuable data are secured for the photographer and etcher. Even without making dot measurements, the test negatives and etchings properly filed and labeled will always enable one to see what the condition of things will be at the end of any elapsed time; of course the deductions made from simple unaided visual observation will not fortify the position of the etcher and photographer to the same extent as if the variations were known in actual measurement, but the making of such test etchings and filing them away for reference, along with an engraver's proof and a solio print of the tonal scale in each case, will begin the establishing of *working standards* in an intensely practical

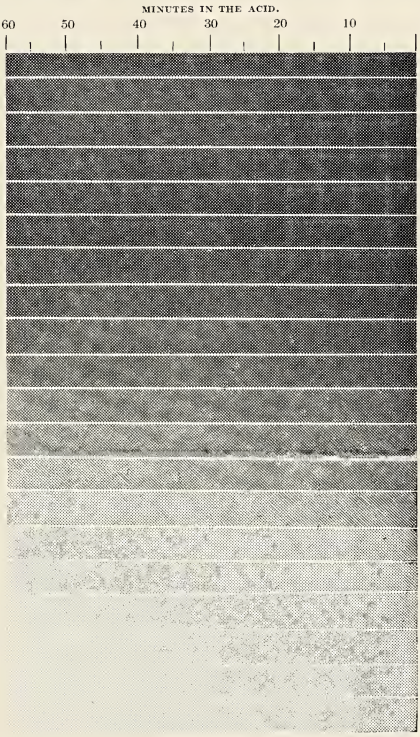


Fig. 49.— Co-ordinate test etching at 65 lines per inch, having been etched edgewise for 60 minutes. The half-tone negative was given a total of 9½ minutes' exposure; 1½ minutes with ½″ stop, 2 minutes with ¼″ stop and 6 minutes with ⅛″ stop, all stops being round. This is not an ideal tonal scale. It shows how a lack of co-ordination between the negative exposures and the etching defeats proper interpretation.

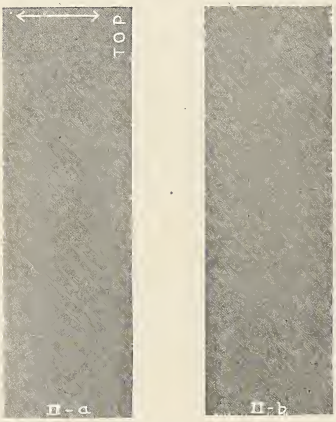


Vertical position in acid. Horizontal position in acid.

FIG. 50.—23-minute flat etches at 150 lines per inch. Enlargements shown in Fig. 53. In **non-circulating** iron.

manner, without the necessity of expensive or complex apparatus.

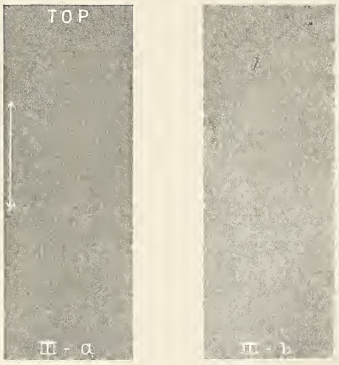
A coördinate test engraving is shown in Fig. 49 at sixty-five lines per inch. In order that a fair degree of uniformity may be attained by different workers, the following details of procedure are given. It is of prime importance to secure an original tone scale that shall give gradations varying by steps of five per cent, so that some definite interrelation is secured. Instead of using a shutter and clockwork control, it is only necessary to make what is sometimes called an "actinometer," but it will be desirable to discard tissue paper in its construction, so that there will be no question as to the kind of tissue that it is best to use. If the physical tonal scale is to cover a 4 by 5 sheet of printing-out paper, then transparent celluloid or pyralin films five inches wide are used. The sheets must be polished on both sides and of .005 inch thickness. The first sheet is carefully cut to 4 by 5 inches, the second the same in width but one-fourth inch shorter, the third also of the same width and one-half inch shorter than the first, etc., varying by one-fourth inch from sheet to sheet until twenty sheets have been cut. The last piece will be four inches long and only one-fourth inch wide. All the pieces are aligned at one end so as to form a series of regularly disposed steps, which, while held with spring clips at the thick end, celluloid cement is applied along the thick edge only, care being taken to not get any of it on the face of the sheets. As soon as dry, in ten minutes or so,



Vertical position in acid.
55 % white.
.0024″ depth.
.0063″ diam.
2 % broken dots.

Horizontal position in acid.
61 % white.
.0022″ depth.
.0066″ diam.
7 % broken dots.

FIG. 51.—23-minute flat etches at 133 lines per inch, in **non-circulating** iron. The data given above are based on mean values of the engravings.



Vertical position in acid.
60 % white.
.0022″ depth.
.0065″ diam.
15 % broken dots.

Horizontal position in acid.
69 % white.
.0021″ depth.
.0069″ diam.
33 % broken dots.

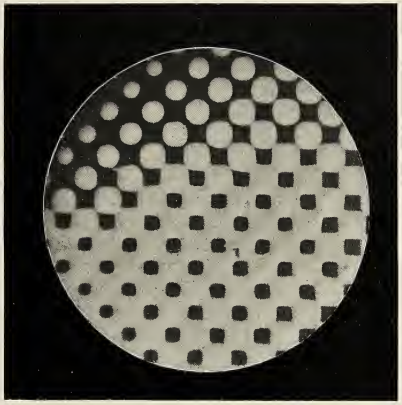
FIG. 52.—23-minute flat etches at 133 lines per inch, in **circulating** iron.

it can be used. The print should be made considerably darker than required so that, on toning, the bleaching does not carry the gradations away from their required value — white at the one end and dark at the other end. After fixing, the scale is photographed in the ordinary manner for halftone reproduction.

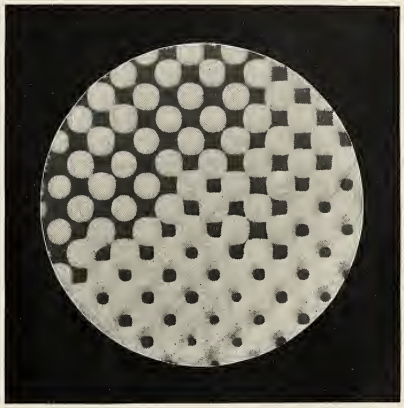
It is desirable to carefully note the size of stops used and the exposure given with each, also to make the negative without reduction or enlargement. If flashing is resorted to, the stop used and the time given should be recorded and the negative labeled with this data, the date and

screen number (lines per inch). For easy cross reference each negative of a certain screen should have a distinguishing mark of identification, as "A," "B," "C," etc., and all the negatives, solio prints, etchings and engraver's proofs relating to one screen number filed vertically in a group, removed by any suitable division from other groups; in this way all data will be accessible for ready reference and comparison.

If these scales are made with care there will be secured invaluable assistance which will be looked upon as a standard authority, dealing with actual practical conditions; they need not be confined to the size mentioned. The ingenuity of processworkers will suggest other forms and dimensions.



I-*a*.
Vertical etching position in same relation as shown.



I-*b*.
Horizontal etching position.

FIG. 53.— Microphotographs of 150-line engravings shown in FIG. 50; enlarged about thirty-three times.

The etching, in each case, if the plate is lowered into the acid automatically in an edgewise manner, is a flat one for a certain maximum time. If it is banded, the etching is done by staging; in either case there will be secured every possible combination of printing gradation through the variation of time in the acid and the tone value of the "copy."

When the plate is lowered into the acid automatically there will be a uniform variation of the time in the acid which will give the exact conditions existing at any moment of the etch, while banding will only give the conditions at stated periods. If the latter method is used the total length of the image portion of the plate is divided into an arbitrary number of divisions, according to the total time the "etch" is to have; the bands are made at right angles to those which represent tone value. If the whole time is to be forty minutes, then it would suffice to divide the plate into ten bands of four minutes each, giving the first etch over the whole plate four minutes, then painting out the first band with asphaltum varnish and giving the second etch four minutes also, and then painting out the second band; the third etch four minutes, etc., after each etch painting out one band. The first band will receive four minutes, the second eight minutes, the third twelve minutes and each succeeding one four minutes additional to the preceding time.

The staging method will not produce such a faithful coördinate scale as the automatic process, because in the one case the etching proceeds gradually without interruption and in the other it is interrupted as many times as there are bands, with the same number of chances for extraneous influences of oxidation, etc., and variations of time through possible errors.

In order to determine what practical difference, if any, there was in etching small plates edgewise or flatwise the following tests were made: Fig. 50 shows a divided portrait marked I *a* and I *b*. The double arrow on I *a* indicates the position the plate stood while in the acid, and the mark "Top" is self-explanatory. The formation of dots of similar tone value is the same in both plates, but it was thought there might be a question as to the sameness of the tone value of any given areas that were compared with each other, so Fig. 51 was made, in which a flat tint was used; the same identifying marks are used to show etching positions. They are additionally designated as II *a* and II *b*. These, with Fig. 50, were made in uncirculating acid. A slight difference was found

between II *a* and II *b* in favor of a more rapid etch for the latter; to try to eliminate this variable tint III *a* and III *b*, comprising Fig. 52, were etched, III *b* the same as II *b*, face down, twenty-three minutes in iron at 38° Baumé and 80° (F.) Fahrenheit, 26.5° (C.) Celsius, or 21.5° (R.) Reaumur. III *a* was placed vertically, as indicated, in the same bath with III *b*. Figs. 51 and 52 were etched the same length of time and the tints were printed from the same negative, but Fig. 52 was produced in circulating acid.

The rate of circulation was fifty cubic centimeters per minute (about two ounces). Under these conditions a very curious point of difference was noted, not so much in the appearance to the unaided eye, but in a slight mottling of III *b* more than in II *b* through the circulation of the acid and the irregular breaking of the white dots so as to cause considerable change in tonal value between III *a* and III *b*, showing that the difference in rate of etching had not been entirely overcome as between the plate in the acid and that which lay in a horizontal position in the same jar, but the difference between the plate III *a* and II *b* is practically negligible, hence a tonal scale etched vertically in circulating acid will have about the same values as one etched horizontally in uncirculating acid, so the one will be a working comparison of the other.

The etching was effected by using three jars, occupying three elevations (Fig. 54), a middle one to hold the plates—one in blocks and the other suspended,—an upper one from which the acid was siphoned to the middle one, and a lower one which received the acid through a siphon from the etching jar. The rate of flow was maintained uniform by dipping acid from the lower to the upper, so as to hold its contents at about the same level. Such an arrangement is simple, and one-sixteenth inch rubber tubing serves well for the siphons. A beveled piece of wood may be inserted at one end of each tube to regulate the flow. The siphon which delivered acid to the etching jar ended just below the surface of the acid, and the other siphon which drew away the acid had its intake at the bottom of the jar. The suspended plate III *a* is remarkably uniform as to depth and tone value. The practical difference between III *a* and III *b*, where a circulating bath is used, can be compensated for by giving a vertically placed plate as much more time in the acid as the difference in tonal percentage of the horizontal plate is lighter than the other.

From these tests it is seen that a coördinate test etching can be safely made automatically while suspended in the acid edgewise. It was first thought that the dots of the edgewise plates would be "lopsided," but such a characteristic did not develop, and in evidence as to the uniformity of symmetry of dots under the vertical or horizontal etching positions, portions of Fig. 50 are enlarged, as shown in Fig. 53. It will of course be understood that the exact relative size is not the basis of comparison, but the symmetry of outline is the point of similarity. They are marked "vertical" and "horizontal."

In order that a coördinate tonal scale can be etched automatically, it is necessary to use a clockwork motor and a string to be unwound therefrom while it supports the plate in the acid. A simpler method consists of a form of "Clepsydra," or water clock, which consists of a jar in which a wooden float controls the movement of the plate being etched. This is illustrated in operative relation to all the other parts of an automatic outfit in Fig. 54, which is self-explanatory. As the water rises in the float jar the float rises with it, and the plate is gradually lowered into the acid jar.

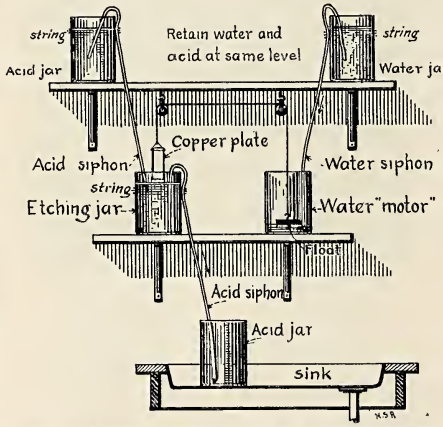


Fig. 54.—Showing arrangement of jars, etc., for etching coördinate tonal scales.

Before attempting to etch a plate, the rate of flow of the siphon should be carefully regulated; it will be better to use a larger sized tube than is used in the etching siphons, as it will be easier to regulate the flow. It is not difficult to start the siphons if the precaution is taken to free them from air so that the liquid will occupy all the tubular space. If, when the plate is etched, lines are engraved at its edge, representing minutes, or multiples of minutes, it will be easier to note the etching time when making comparisons with other conditions.

Suppose now that a plate was so etched and when compared with the solio print it was found to be faulty in interpretation, then, after careful study as to causes and remedies, another negative should be made which will compensate therefor.

Once the negative has been adjusted to the etching condition the subsequent results in general etching will have a uniformity that can not be attained without a standard of comparison such as a tonal scale establishes.

The production of such a set of tonal scales will be of very great practical value and special tests made therewith will show the photographer the relative value of screen distance, stops, exposures, developing, intensifying and cutting and to the etcher the proper time for etching or staging to any combination of tone values for any given number of lines per inch.

(To be continued.)

MR. JOHN A. HILL ON ADVERTISING.

MR. JOHN A. HILL, of the Hill Publishing Company, New York, can express himself in as breezy a way as any man of the craft that we recall at the moment. Recently he spoke to some advertising managers and gave them good advice. Touching on how to select mediums, he handed the ad.-smiths these tips, which we commend to all whom it may concern: "In this medium business you have no right to take anything for granted. It is your duty to investigate first hand — not to send out an analysis chart to each paper for the foreman of the Liars' Department to fill in, or the legitimate publisher to decline, but to go to the office and get acquainted with the whole concern. Put it up to them that you are hunting for results and you want to be shown. Learn early in the game not to compare the circulation or the rates of one paper with another. It is pretty certain that a paper editorially interesting will be read. It is pretty certain that a paper working off puffs and write-ups as editorials will not be read. Every time a paper refuses one of your own mimeograph articles for an editorial write-up it ought to increase your respect for it."

Who that has had anything to do with the callow advertising man's copy will not say "Amen" to this chunk of wisdom red-hot from the crucible of Mr. Hill's experience:

"If you have been through an ad.-school and remember the names of some styles of type, don't forget that even the best equipped print-shop may not have that series. Recently we set up an advertisement from the copy of one of our Western advertisers and it looked well, although it was not exactly as "specified in the bond." The ad.-man of that concern, in the language of the poet, "raised hell." He swore the advertisement was ruined, N. G., on the blink, and a lot more. In the same mail came a letter from one of our most particular advertisers, and a man of good taste, too, asking us who got up that advertisement and stating that he would like to employ the same artist with the idea of putting some "Mary Ann" into his own space. Cuts are a universal language and should be used, but for heaven's sake don't forget that any old electrotype is not a cut."

A JOB FOR THE SIMPLIFIED SPELLERS.

The London *Daily Chronicle* gives these eccentric pronunciations of a few of the curious place names that dot the map of England:

Rhudbaxton is Ribson.
Woodmancote is Uddenmuckat.
Sawbridgeworth is Sapser.
Churchdown is Chosen.
Sandiacre is Senjiker.
Little Urswick is Lilosik.
Aspatria is Spethry.



LOOK PLEASANT.
Courtesy D. M. Tomkies, Gainesville, Florida.

St. Osith is Toosy.
Chaddenwyche is Charnage.
Happisburgh is Hazeboro.
Salt Fleetby is Sollaby.
Almondesbury is Amesbury.
Conugresbury is Coomsbury.

Of places better known Ulverstone is Oost'n and Hurstmonceaux is Horsemounces. In short, to pronounce an English geographical name correctly, the safest rule seems to be to disregard the spelling.

A BRIDEGROOM once presented the bridesmaids at his wedding with pearl brooches. Judge of his dismay when on reading the account of the ceremony, he was informed that the bridesmaids had all worn "handsome breeches, the gift of the bridegroom."



Plate by The Inland-Walton Engraving Company.

Photo by N. Brock, Asheville, N. C.

RETROSPECTION.

CORRESPONDENCE

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore, correspondents will please give names — not necessarily for publication, but as a guarantee of good faith. All letters of more than one thousand words will be subject to revision.

WARNING TO THE TRADE.

To the Editor: FREEPORT, ILL., August 2, 1906.

Some weeks ago a bookbinder applied for work at Freeport, Illinois, and received a situation in the Wagner bindery, giving his name as Frank Wilson. He is about five feet ten inches high, weight about one hundred and sixty pounds; has light blue eyes, brown curly hair, trifle bald; smooth face, two upper eye-teeth project outward a trifle, is rather good looking and a very fluent talker; has deep soft voice.

In Freeport he forged checks to the extent of $40 to $50. Was last heard of at Milwaukee, about a week after he left here. Reports are received from Minneapolis and St. Paul that he had also visited these cities under the name of Dan McDill. At Rockford he went under the name of Frank Hickby. He should have been married at Minneapolis and St. Paul to two different women and a third one at Mankato, Minnesota.

We would warn the bookbindery fraternity to be on the lookout for this party and give him a wide berth, or see that he is arrested. W. H. WAGNER & SONS.

IMPOSITION FOR FOLDING MACHINES.

To the Editor: GENEVA, New York, July 30, 1906.

In the article by Mr. Philip Zace on "The Mechanism and Adjustment of Folding Machines," page 521, Fig. 26, July issue, the representation of the layout is faulty, i. e., it reads (on folio 14 and 15 side) "Folder gripper edge" and "Printing-press side guide." The latter should read "Printing-press gripper." On the folio ends (14, 11, 2, 23, 22, 3) which read "Folder-gage edge" and "Printing-press gripper edge" the latter should read "Printing-press slit edge." By imposing in this way the difference in presswork is reduced by using a "work-and-turn" sheet. W. J. IRVINE,

With Geneva Printing Company, Geneva, New York.

Fig. 26, page 521, in the July issue of THE INLAND PRINTER, is correct as shown. The diagram represents a printed sheet from an inside form of parallel twenty-fours, two-on, book imposition. The note at the bottom of the diagram is a reminder that the form, as shown, has been printed sheetwise, or, in other words, outside at one printing, inside at another. The notes and diagram are also correct for the same form, if imposed for printing a work-and-turn sheet. In the latter case the folder gage edge and printing-press gripper edge would be the same as shown in Fig. 26. If the entire form of forty-eight pages were shown, the inside pages would appear on the left of the diagram, Fig. 26, and the cut edges of the sheet would become the folder gripper edges. These edges would be adjacent to pages 14 and 15, again as shown in Fig. 26.

PHILIP ZACE.

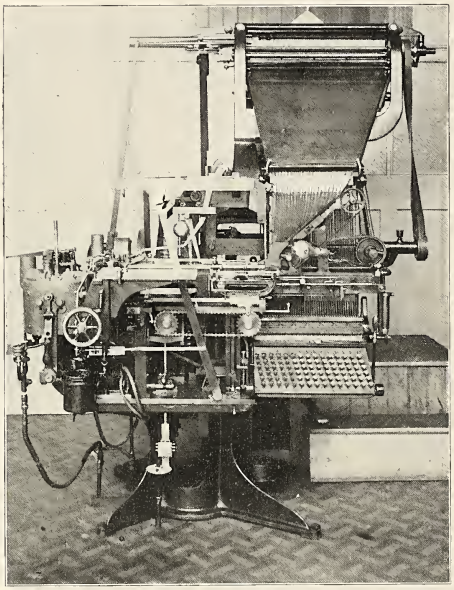
Written for THE INLAND PRINTER.

LONDON NOTES.

BY OUR SPECIAL CORRESPONDENT.

AT the time of writing, the Printing and Allied Trades Exhibition is being held in London, and an extensive show of machines, appliances and materials of all kinds fills the large building and several of the annexes at the Agricultural Hall, Islington. There is not much that is noticeable in the way of improvements since the last exhibition was held two years ago, yet one or two things are of such a novel character as to merit the attention of the trade. Among these is the much talked of "Stringertype" matrix composing and casting machine, which is here shown in public for the first time. Up till now considerable mystery has been made about the construction of the machine, and the published descriptions, although accurate, have conveyed but little idea of what it was like in actuality. The invention of Mr. Gilbert Stringer, a one-time journalist, it is in appearance remarkably like the Linotype machine, but its construction and working parts are different, although we understand that the owners of Linotypes can take advantage of the invention and have them converted into Stringer machines; this opens up a new field for those who desire to acquire the machine cheaply. The Stringer is a one-man machine; composition, justification, and casting being done in consecutive operations, while the characters are cast separately, each line when set up being similar to that set by the hand compositor; this allows of corrections in the galleys or in pages, being easily made, as sufficient type to fill cases can be cast on the machine. The operator, in setting from his copy, fingers the keys in the ordinary way, and thereby releases the matrices from which the required characters can be cast. When he has depressed a sufficient number of keys to assemble letters to make up the required length of line, a bell rings; then he touches a separate key or button and each letter in the line is automatically cast in single type and the completed line delivered on to a galley. Line upon line is rapidly added, when it is ready for proof pulling. While one line of matrices is being distributed, type is being cast from another, and at the same time a third line is being composed, and all these operations are conducted concurrently and the first two perfectly automatically. The spacing is ingeniously effected by special spacebands, which are made up of two parts, a wedge-shaped steel piece being slidably engaged with a matrix-shaped piece, which latter has a notch cut in one edge; the wedge-shaped steel piece has also a taper upon one edge of its width and in its normal position the notch is exposed, as the moving or long part of the space is forced upward, so that the notch is correspondingly covered by the greater width of the sliding piece. Thus, the shallower the notch, which is determined by the rising of the long wedge, the larger is the set of the mold and of the resulting space cast. In working the "Stringertype," the line of matrices having been assembled, the operator depresses a key at the left of the keyboard, which delivers it into a channel where it is justified by means of a friction-driven table, which, having determined the height of the space, remains at that position during the casting period. The matrices and spacebands are now advanced to the end of channel, from whence, in unit order, they come in front of the mold, the alignment being effected by a flange which enters between the ears or lugs of the matrix. At the same time, a sliding bar engages the set notch, and thus determines the gap of mold. After each type is cast, the ejection from the mold and the breaking off of the tang is simultaneous. The type is arranged in

proper order until the line is complete, when it is moved to the front of machine on to a galley. Matrices and spaces follow each other into and out of the casting box, the spaces falling to their normal position after casting, because no longer receiving support from the justification table. Meanwhile, the matrices and spaces are re-assembling (after casting) in a channel running parallel with the justification channel, where they remain until the next line has been delivered into the justification channel and the delivery key depressed, when the elevator arm descends and transfers the matrices to the distributor. The speed of the "Stringertype" is only limited by the capacity of



THE "STRINGERTYPE."

the operator, and nine thousand an hour may easily be achieved. The type, as set up, is sharp, deep cut and clear, and special attention has been given to ensure its being exactly height-to-paper. The proprietors claim that the machine is free from the inherent defects that have up to the present time restricted the usefulness of matrix composing and casting machinery, and that therefore this invention will not only create a market for itself, but will supersede all existing machines, especially as it can be constructed at a price which will permit of its being sold or leased at a very low figure as compared with that now charged for matrix composing machines, and in the extended field which it will create it is claimed that a saving of at least fifty per cent will be effected by its adoption. A point is made of its capacity not only for newspaper work, but for setting up all kinds of books, magazines, circulars, law and parliamentary reports, and other matter done by the general printer, and thus possesses an advantage over previous machines, it being able to do not only what the Monotype does, but accomplishes it by a process compassing the advantages of the Linotype machine, and also does what the Linotype machine can not do by a process more simple and efficient than machines of the Monotype class, it being a combination of the best known methods, combining the typefounding machine with unprotected portions of the ordinary Linotype machine, and by such combination producing the desired result. A rapid exchange may be made of both magazine and molds to permit of the production of different bodies and faces, and these will only be limited by the number of fonts of matrices and the accompanying molds that are acquired by the purchaser. It can be easily learned by any operator accustomed to the older machine, and as there is no complicated mechanism, there is nothing to get out of order. The machine throws itself out of action under certain contingencies, as, for instance, if the line of matrices is too short or too long for the proper length of line; if the matrix is bent or otherwise faulty, or is out of position; if the matrices fail to separate for casting and if a faulty type occurs during casting; or if a type on the way to the galley slips out of position the machine will instantly come to a standstill, thus calling the operator's attention to the fact that there is something wrong. To further improve the machine, it is proposed to attach an automatic feed for the metal-pot and this will still further induce to economy in working. The driving power is but one-third horse-power.

At my last writing a strike of the London Society of Compositors was imminent, and since then the machine minders resolved to tender their employers a fortnight's notice. Fortunately, however, matters have now quieted down and work is going on as usual, the prevailing opinion being that no disturbance will take place, although there are a number of hot-headed individuals on the side of both employers and workmen, who would have liked to have seen a cessation of work take place. One outcome of the dispute has been the issuing of the following notice by the London Society of Compositors: "Chapel officers and the members generally are respectfully informed that the new rule limiting overtime to eight hours per member per week takes effect on Monday, June 18. Henceforth members must decline to work more than eight hours in any one week, from Monday to Sunday inclusive. For the purposes of this rule, the number of hours lost in accordance with Rule XLIX are to be deducted from the actual overtime charged." Little trouble, it is expected, will be found over the question of overtime, as neither employer nor employee like it.

A MEETING of the principal London newspaper proprietors has been held under the presidency of the proprietor of the *Daily Telegraph* and was attended by representatives of the principal London newspapers. It was unanimously resolved to form a London Newspaper Proprietors' Association, and to register it as a limited company. The association will deal with all matters affecting newspapers, and in labor disputes it is expected it will endeavor to act independently of the present Master Printers' Association, with whom it appears newspaper printers do not identify themselves.

THE first number of a new halfpenny London daily paper was published on Tuesday of last week, bearing the title of the *Majority*. It was equal in appearance and about as good in its contents as most of its halfpenny morning contemporaries, but on the Saturday, five days after its birth, it announced its own demise and ceased publication. This surely is a record of a short life for a daily newspaper.

THE general secretary of the General Union of Lithographers, Mr. George D. Kelley, M. P., is going to visit Canada and the United States this year to endeavor to arrange for the establishment of an exchange ticket, so that members of lithographic societies leaving one country

for another in search of work may be recognized as trade-unionists and be eligible to the privileges of the foreign societies. Mr. Kelley also intends to give a series of lectures with the idea of helping to strengthen and consolidate the American and Canadian lithographers' unions.

THE Lambert four-color machine, a French invention that was taken up in London by Bemrose Dalziel, Ltd., is now installed as a large plant at Watford, near London, for the execution of colorwork by this process. The principal feature of the Lambert press is that four colors can be printed at one feeding through the machine, and work of the highest class may be done at a high speed.

THE London Printers' Managers and Overseers' Association generally has a summer outing each year; this time they have visited Epping Forest and have dined, sang and danced in the open air, thoroughly enjoying themselves.

STILL another new feeder has been put on the English market, having been introduced from Germany by Messrs. Lennings & Huesing. It is at work in several London offices on flat-bed machines and seems to solve the problem very effectively of automatic feeding of the different thicknesses of paper. It is on the pneumatic principle and will feed from twenty to thirty reams per day. One firm has been so pleased with the work the feeder has done that it has given an order for ten feeders, while another firm that has ordered one has promised that if it works satisfactorily they will take other forty.

A DESPERATE attempt to make a combine to keep up retail prices is being made by a number of the members of the stationery trade, who have banded themselves together under the title of the Stationery Proprietary Articles Trade Association. The body embraces both wholesalers and retailers, and at the annual meeting it was stated that the membership now exceeded nine hundred, the list of protected articles had been largely increased, and not a penny was owing, though all the capital outlay attendant upon the formation of a new society had been defrayed. A further source of satisfaction was the fact that, in dealing with certain reported cases of underselling, it had not been made necessary to place a single name upon the stop list. This stop list is a species of boycott whereby an offending member has his supplies cut off until he cries "*peccavi.*" The society is not looked upon with much favor by many in the trade, and an authority declares that "price-fixing benefits nobody in the long run, because when price is fixed the stationer has still got to find those able or willing to pay it. Some friends can not or will not, and are lost for their custom in other lines. The manufacturer stands to lose from the first by anything that interferes with public demand, gaining nothing in return. Nobody is responsible to him, and flattery won't pay his monthly bills." Trusts of this kind do not seem to flourish in Britain.



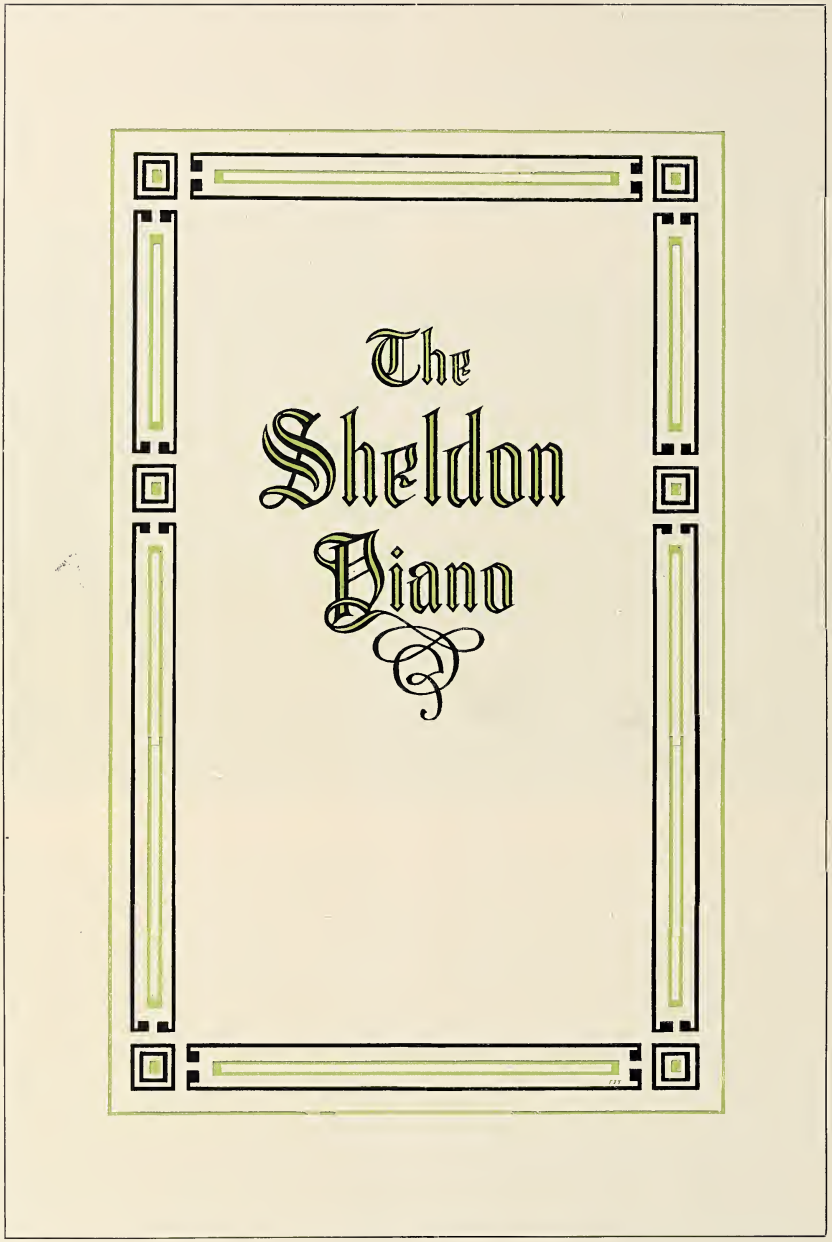
ON LOCH LONG, SCOTLAND.

ADVERTISING MATTER PRINTED IN GERMAN.

Consul-General Frank Dillingham, of Coburg, German Empire, calls the attention of American exporters to Germany to the important fact that they should have all advertising matter printed in German. He writes:

"The present practice of sending to this office for distribution, or directly to the trade itself, literature which is printed in English is utterly useless, because only a very few of the people to whom it is given can speak or read English, so that it is in every respect dead matter and therefore a useless expense and loss to its senders. If, however, it is printed in German it will not only be read, but will, in many instances, bring orders to our exporters, who in time will find it possible to do a direct and profitable trade with the Duchy of Saxe-Coburg-Gotha, rather than the comparatively small trade of to-day, which is principally done through Berlin houses. My suggestion regarding printed matter also applies to correspondence."

FORTITUDE: That quality of mind which does not care what happens so long as it does not happen to us.—*Elbert Hubbard.*


The
Sheldon
Piano

Job Composition

Under this head will appear each month suggestive analysis and criticism of reproduced and resel specimens of job composition, answers to queries and notes of general interest to job-printers. Address all communications and specimens for criticism in this department to The Inland Printer Company.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

Vest-pocket Manual of Printing. 50 cents.

Specimens of Business Cards and Tickets — sixteen-page booklet — 25 cents.

Specimens of Envelope Corner Cards — twenty-four-page booklet — 25 cents. New second edition.

Modern Letterpress Designs.— A collection of designs for job composition from the *British Printer*. 60 cents.

Specimens of Letter-heads.— Modern typework, printed in one, two and three colors and with tint-block effects. 50 cents.

Menus and Programs.— A collection of modern title-pages and programs, printed on cloth-finished and deckle-edge papers. 50 cents.

American Manual of Typography.— New enlarged edition. 180 pages, heavy cover, cloth back, gold stamp, gilt top, 24 chapters. $4.

Impressions of Modern Type Designs.— Thirty pages, 6 by 9, in colors, paper cover. Published to sell at 50 cents; reduced to 25 cents.

Alphabets, Old and New.— By Lewis F. Day. Second edition, revised and enlarged. A historical work on lettering in all ages. $1.35.

Portfolio of Specimens of Printing.— The second of the series, composed of a wide range of commercial work in pure typography. 50 cents.

Decorative Designs.— By Paul N. Hasluck. Ancient, medieval and modern decorative designs and ornaments, fully illustrated. 160 pages. 50 cents.

Beran: Some of His Work.— Contains over one hundred demonstrations of combining art with the practical in commercial printing. 148 pages, 9 by 12. $3.

Specimens of Bill-heads.— Contains suggestions that are applicable to every-day requirements; in one, two and three colors, on a variety of colored papers. 25 cents.

Title Pages.— By Theodore Low De Vinne. Treats the subject from three standpoints — Historical, Practical and Critical. Copiously illustrated. Cloth, 12mo, 485 pages, $2.

Modern Book Composition.— By Theodore Low De Vinne. A thoroughly comprehensive treatise on the mechanical details of modern book composition. Cloth, 12mo, 477 pages, $2.

Plain Printing Types.— By Theodore Low De Vinne. A treatise on the processes of typemaking, the point system, the names, sizes, styles and prices of plain printing types. Cloth, 12mo, 403 pages, $2.

The Stoneman.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1, postpaid.

Art Bits.— A collection of proofs selected from odd issues — half-tones, three-color prints, engravers' etchings, etc.— neatly mounted on harmonious mats of uniform size, twenty-five selections in a portfolio. Price, 50 cents.

The Principles of Design.— By Ernest Allen Batchelder. Handsomely printed and illustrated. Indispensable to the artistic job compositor, as expounding the underlying principles of decorative design and typography. 250 pages; cloth, $3.

Twentieth Century Cover-designs.— Contains essays on cover-designing by well-known experts, and many specimens of modern covers, printed in colors, on different kinds and shades of color stock. A beautiful piece of typography. $5, prepaid.

Lettering for Printers and Designers.— By Thomas Wood Stevens. A comprehensive treatise on the art of lettering, with many modern examples, together with tables and measurements valuable to constructors of advertising matter. $1, postpaid.

Correct Composition.— By Theodore Low De Vinne. A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.

Hints on Imposition.— By T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions which may be readily understood. Several chapters are devoted to "making" the margins. Full leather, 4 by 6 inches, flexible. $1.

Much interest is being shown in The Inland Printer letter-head contest, announcement of which was made in the August number, and the entries are rapidly coming in. The fact that it is not necessary to print the specimens submitted on a press, but that an ordinary proof will be accepted, is opening the contest to many who would otherwise not compete, owing to the extra labor and expense involved in making the jobs ready on the press. The offering of premiums to the contestants whose specimens are awarded first and second places is also responsible for a considerable portion of the interest shown, both of these premiums being of special value to printers. "The Principles of Design," by Ernest A. Batchelder, a copy of which will be awarded to the contestant whose specimen receives first place, is a book which should be in the library of every printer. It contains much information that is of every-day use in the construction of job composition. The booklets of specimens — letter-heads, cards and tickets, bill-heads, menus and programs and envelope corner cards — are all replete with ideas for the job-printer. The styles are modern and are available for constant use in the composing-room. The contest will close on September 15, and all specimens must reach this department on or before that date. Those received later will be thrown out of the contest. Do not delay your specimens, but send them in early.

The printing of railroad and resort booklets and pamphlets offers, in all probability, as great inducements for the display of ability on the part of the ambitious craftsman as any other branch of the work. The range of this class of printing is wide and varied, embracing literature which advertises everything from the land which

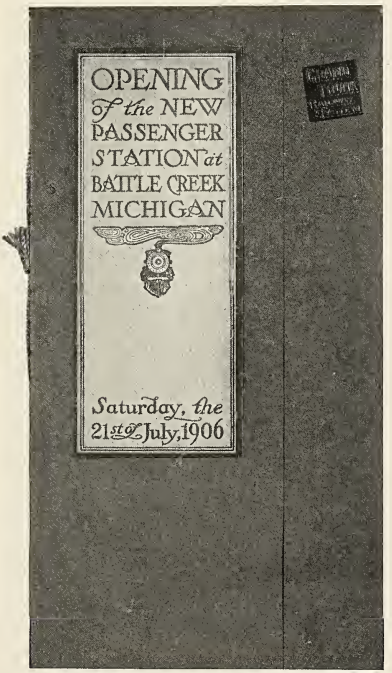


Fig. 1.— Cover of artistic booklet used by the Grand Trunk Railway to announce the opening of a new station at Battle Creek, Michigan.

the railroad company has for sale along its right of way to the resorts on or adjacent to its lines. Nor is this all. The opening of a new depot or the putting into service of a new train calls for the best efforts of the artist and printer, in order that the event may be brought to the attention of the public in an attractive manner. The education of the public along the line of good printing has made it necessary that this literature be well written, well illustrated and well printed. The tourist's opinion and knowledge of the resorts is based largely on information gained from these booklets, and in consequence the more alluring the descriptions and the more beautiful and inviting the views the greater the weight of the booklet as an advertising proposition. No expense is spared on some of this work, the writing being done by high-priced specialists, the numerous photographs being made by the best photographers and the designing and typography being handled with consideration for nothing but the best results. As a consequence, the production of artistic effects is becoming the rule rather than the exception, and an assortment of this kind of literature is well worth, to the printer who appreciates good things in his line, the time and effort spent in its accumulation.

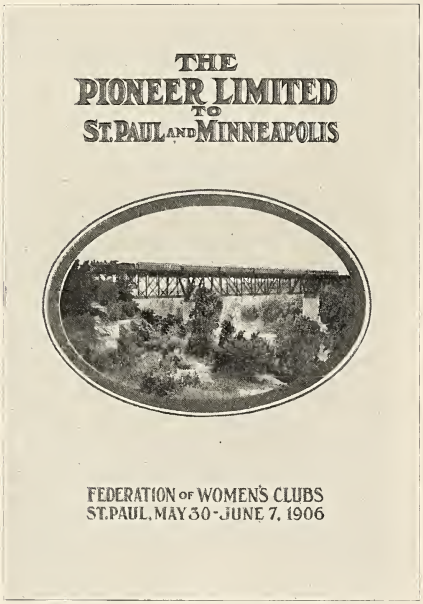


Fig. 2.— Cover of pamphlet issued by the Chicago, Milwaukee & St. Paul Railway to describe one of its trains.

The great increase in the amount of travel during the past few years is responsible for much of the railroad literature of to-day. Vacations are taken both winter and summer and multitudes migrate from climate to climate as the seasons change. This produces a demand for information concerning the resorts of various kinds, and this demand the railroads supply in the form of booklets and pamphlets. It is obvious that the most important attractions in these descriptions are the illustrations, and hence much time and thought are expended in procuring the most charming views from the regions to be exploited.

The fact that the railroad booklet is designed to cater to all classes, and that the average eye is more sensitive to color than to neutral tones, makes it essential that, in most cases, the cover which is to attract attention must be printed in colors. This in many instances takes the form of three-color reproductions of landscapes which are really works of art aside from the outing suggestions which they contain.

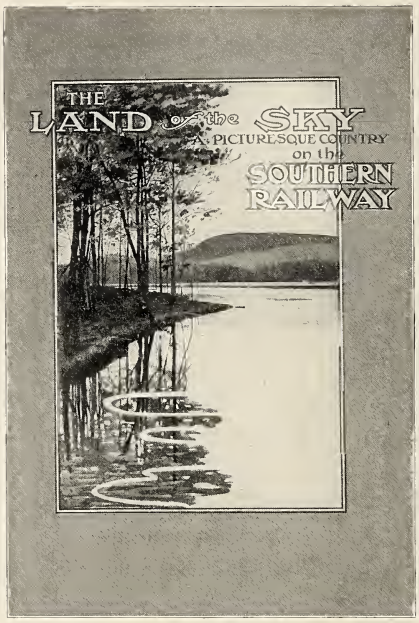


Fig. 3.— Cover of handsome booklet issued by the Southern Railway.

Fig. 1 is an illustration of the importance of good printing in connection with some of the comparatively minor happenings in the railroad world. It is a reproduction of a booklet of eight pages and cover gotten out by the Grand Trunk Railway to announce the opening of a new passenger station at Battle Creek, Michigan. The body of the booklet, which contains a specially designed title-page and several illustrations in half-tone of the new depot, is printed in brown ink on India tint paper. The trade-mark on the cover is embossed in gold on a black background and the reading matter is printed on a separate panel and tipped on. The whole forms a very artistic and attractive piece of work. It is the product of the Gage Printing Company, Ltd., Battle Creek, Michigan.

The attention given to the use of fine printed matter in relation to special meetings, conventions, etc., is shown in Fig. 2. This is a reproduction of a booklet issued by the Chicago, Milwaukee & St. Paul Railway to advertise one of its trains in connection with the meeting of the Federation of Women's Clubs. The cover is embossed in gold on white deckle-edge paper, the three-color illustration in the center being printed on coated paper and tipped on.

The result is a handsome souvenir. It is from the press of the Wright & Joys Company, Milwaukee, Wisconsin.

Fig. 3, a reproduction of the cover of a booklet printed by The Edgell Press, Philadelphia, for the Southern Railway, is exceptionally interesting and attractive. It is in colors, with the lettering in gold bronze. The tint around the page is a delicate buff. The body of the booklet is in two colors, tints being used beneath the half-tones. The result is a most handsome and artistic pictorial description of "The Land of the Sky," while the alluring manner in which the text is written leaves nothing to be desired in the description of its charms and superior inducements as a resort.

The character and charm of the Far East are strongly suggested in Fig. 4, not only in the illustration but in the lettering and ornamentation. This is a reproduction of the cover of a booklet printed by The Frank Presbrey Company, New York, for The Peninsula & Oriental Steam Navigation Company, London. It is in three colors and



Fig. 4.— Cover of booklet descriptive of the Orient, issued by The Peninsular & Oriental Steam Navigation Company, London.

gold, printed on white stock and pebbled. The booklet itself is handsome, being replete with excellent half-tone illustrations of noted buildings and scenes in the Orient, tint-blocks in colors being used beneath some of the views. The different chapters are devoted to different countries and the chapter headings are specially designed with decoration suggestive of the country described. The mechanical details of the booklet are beyond criticism, typography, presswork, etc., being of the best.

Another handsome cover in colors is shown in Fig. 5. This is from a booklet issued by the Northern Pacific Railway to interest the traveling public in the lake resorts of Minnesota. The illustration is printed in three colors, with a buff tint around the edges, the tint being separated

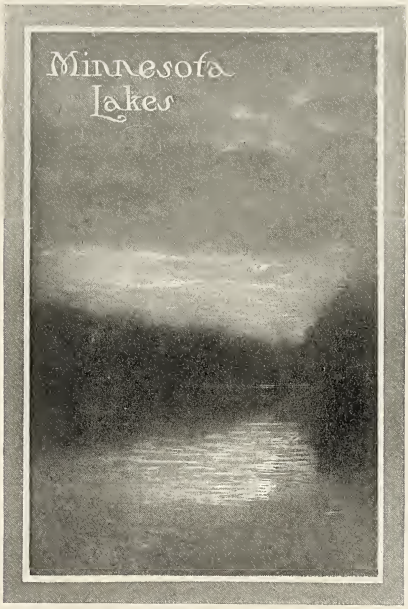


Fig. 5.— Cover of booklet issued by the Northern Pacific Railway to advertise the lake resorts of Minnesota.

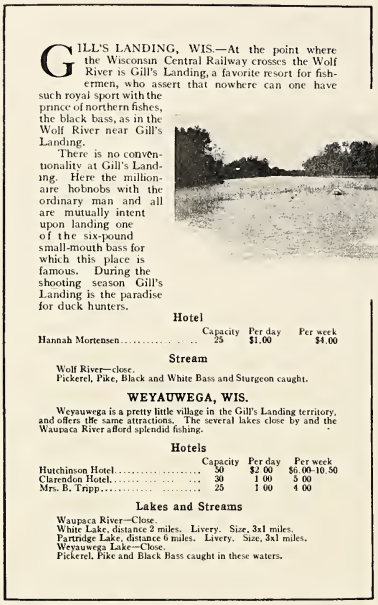
from the view by a narrow strip of white. The reading matter and illustrations on the inside of the booklet are admirably printed in double-tone ink.

As a specimen of the interesting manner in which the text of some of these resort booklets is illustrated, Fig. 6 is shown. It is from the "Summer Book" of the Wisconsin Central Railway, printed by the Wright & Joys Company, Milwaukee, Wisconsin. These marginal illustrations, which are found throughout the booklet, add much to its appearance and its power as an attractive advertisement for the summer resorts in question. The information given, together with its typographical presentation, are most satisfactory.

A clever adaptation of the Gothic form of letter to the use of a folder for a summer hotel is shown in Fig. 7. It was designed and printed by the Matthews-Northrup Company, Buffalo, New York. The original is in green and blue on a neutral gray stock and forms an attractive circular. A comparison of this specimen with type specimens set in text letters will demonstrate the superiority of the hand lettering, the freedom and grace of the lines in this design being impossible where the stiff, inflexible type is used. The use of hand lettering is becoming almost universal on the better grades of this work, both for covers and title-pages, and, in consequence, with machine composition for the text and artists to design the display, the job-printer who can not occasionally do a bit of lettering

or ornamentation will eventually find this branch of the printing business entirely out of his hands.

The cover of another handsome booklet is reproduced in Fig. 8. It is embossed in gold and light blue on a grayish-blue stock. The body of the booklet is printed in dark


GILL'S LANDING, WIS.—At the point where the Wisconsin Central Railway crosses the Wolf River is Gill's Landing, a favorite resort for fishermen, who assert that nowhere can one have such royal sport with the prince of northern fishes, the black bass, as in the Wolf River near Gill's Landing.

There is no conventionality at Gill's Landing. Here the millionaire hobnobs with the ordinary man and all are mutually intent upon landing one of the six-pound small-mouth bass for which this place is famous. During the shooting season Gill's Landing is the paradise for duck hunters.

Hotel

	Capacity	Per day	Per week
Hannah Mortensen	25	$1.00	$4.00

Stream

Wolf River—close.
Pickerel, Pike, Black and White Bass and Sturgeon caught.

WEYAUWEGA, WIS.

Weyauwega is a pretty little village in the Gill's Landing territory, and offers the same attractions. The several lakes close by and the Waupaca River afford splendid fishing.

Hotels

	Capacity	Per day	Per week
Hutchinson Hotel	50	$2 00	$6.00-10.50
Clarendon Hotel	30	1 00	5 00
Mrs. B. Tripp	25	1 00	4 00

Lakes and Streams

Waupaca River—Close.
White Lake, distance 2 miles. Livery. Size, 3x1 miles.
Partridge Lake, distance 6 miles. Livery. Size, 3x1 miles.
Weyauwega Lake—Close.
Pickerel, Pike and Black Bass caught in these waters.

FIG. 6.—Specimen page from "Summer Book" of Wisconsin Central Railway.

brown and a tint of blue-violet on white stock. The entire work, both in design and mechanical details, is excellent. It is issued by the Muskoka Lake Navigation and Hotel Company, Gravenhurst, Ontario, in the interest of the Royal Muskoka Hotel.

MR. THEO. L. DE VINNE ON THE SITUATION.

There is no printer in America whose utterances command more consideration from the trade than Mr. Theo. L. De Vinne. This is an acknowledged fact, though it does not necessarily follow that his point of view is always accepted. But inasmuch as Mr. De Vinne always speaks from the sincerity of conviction, his review of the existing relations of the United Typothetæ and the International Typographical Union demands the most careful consideration from all concerned. In a letter to President Ellis at the United Typothetæ Convention, Mr. De Vinne said:

My Dear Mr. Ellis:

I read your notice of June 8th with warm approval. Your prophecy that we should win in our contest with the union came true. Like you, I am not entirely content with this success. We must not only hold on to what we have, but must get and hold more for permanent security.

The question of an eight-hour day is not closed. We did right in refusing to accept it in January last, but we do wrong if we refuse it as a rule of the future. Our contention is that the arbitrary decree for this change was business suicide to many houses; that the sudden addition of fifteen per cent to a rapidly increasing cost of labor and the certain refusal of the buying public to aid us in covering this loss was the straight road to bankruptcy. But the short day that is a dangerous experiment in one year may be safe and wise if postponed for a reasonable time. It is our turn now to make this offer and we would make it to workmen employed in all departments, and especially to the pressmen.

There are members of our typothetæ who fear a possible entangling alliance with the pressmen's union. Is there any good reason for this fear? The pressmen's union has always been reasonable and just to the book and job trade of our city.

To refuse conference on this proposition will be an affront needless and unwise. As now organized, printers' unions are not so fair and reasonable as they could be; but they are facts to deal with that can not be ignored. To counsel non-intercourse at all times and under all conditions is to imitate the trade-union practice of the boycott and the union label, which has been to them more of a damage than a benefit. If we practice this method at this time we shall meet the same result. Workmen will associate and will organize. We must meet them where and how we can. If they insist on what is unjust and impracticable we must refuse; but let us not begin with a policy of non-intercourse. Time will come, and it is not far off, when the dictatorial methods of unionism will be abandoned and a conciliatory policy substituted. We must not shut this door.

What we contend for more than for any other question is the open shop. We must maintain our right to employ any person we can agree with, and to buy or use plates, paper, type and presses without the permit of any union. We must refuse to have our business strangled by boycotts or union labels.

Here we stand on solid ground of justice with law to protect us. Judges everywhere, in courts high and low, declare unlawful all contracts that guarantee a monopoly of privilege or of employment to union men. Commissioners appointed to pacify a recent strike of miners were unanimous in denying the right of unions to keep free men out of work. Unions everywhere have signally failed in efforts to prevent employment of free men in government offices and workshops. Congress and state legislatures are now active in suppressing trusts of all kinds that give preference to one class only. It is not probable that the trust of labor as organized in trade unions can much longer escape the entire abolishment of their usurpations. We need patience and firmness to secure this result, but it is sure to come.

The existing verbal agreement between the union and the few eight-hour shops that have put on the union yoke can not be extended much longer. It is too onesided. We must try to increase the number of open shops. Conditions favor us, for they have proved that the closed shop is a damage to all interests and especially so to the skilled workmen who are made to support the incompetent.

Our typothetæ does not bind us by a stringent oath to help one another in disregard of all law, civil, religious or political, but it does assume, without asking for any pledge, that we shall be mutually helpful, that we shall be careful of the rights of brother members, just and friendly to our workmen, fair and considerate toward the buying public. To do as we would be done by does not authorize excessive demands on customers, or the reduction of just wages to workmen, or unfair means of diverting trade from houses to which it has been attached for years. To strengthen our typothetæ as we desire we must regard the general good; we must not underbid on contracts by evading specifications; nor allure the attached employees of brother members with promises of better pay or future profit.



FIG. 7.—Artistic cover for summer hotel circular.

Our first duty is to be not only just but friendly with our free workmen and consider their interests more than we have done. Membership of the union is largely swelled by promises of higher wages and more certain employment, of relief when disabled and of decent burial at death. Surely we can do as well and better to attached employees, without the expensive methods of the union and at less cost to the persons benefited. The great hindrance to organize mutual aid has been the excess of idle and incompetent workmen who are invested by the union with all the rights and privileges of the competent. How to deal with this class is a puzzle, but we can solve it if we have patience.

A proper beginning of this needed reform will be the more careful selection of boys to learn the trade. The boy who has no love for books or printing should not be allowed to become a compositor. Sweeping of floors, cleaning of type and cases and other work of drudgery can be better done by those who are specially qualified for these duties. Competent workmen can be had through the education of intelligent boys. Too many of our so-called compositors are typesetters only, not so intelligent, nor even



Exhibit

BRONSON'S
SCHOOL *of*
FINE ART

PASADENA, CAL.

AT ENGELSON HALL
FRIDAY AND SATURDAY
NOVEMBER 16-17, 1906

so skilful as the average stenographer and typewriter. Our method of training apprentices has been faulty, for it is based on social conditions that have passed away. The wages now paid to compositors are as good as and even better than the wages paid to more intelligent young men who begin as clerks in stores. We can enlist boys of this class and attach them to us if from the start we pay them fair wages and offer proper opportunities for advancement. Our trade schools for machine composition have demonstrated that it does not require an apprenticeship of many years to make a lad an efficient helper.

The unfair treatment we have received recently from the unions provokes hostility, but all actions of resentment we may wisely forego. We have won the fight. Let us be content with that and not foment new

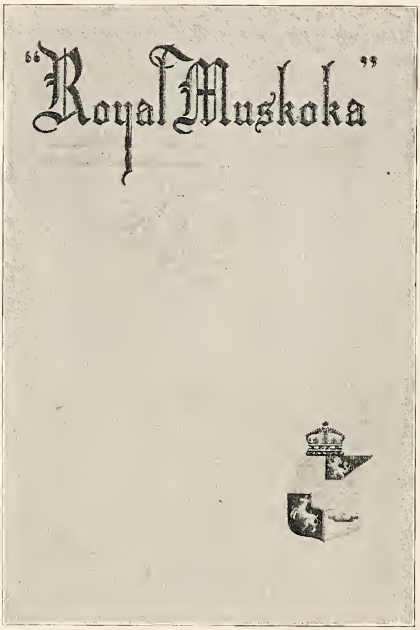


FIG. 8.—Resort booklet cover, by Muskoka Lake Navigation and Hotel Company.

quarrels. We have proved that we can now, as we did years ago, carry on our business without the permit of the union. Let us go on as we began, but let us also take counsel with attached employees.

Let us suggest that there should be a meeting at least every year, oftener when desirable, in every printing-house of all the men in the composing-room with foreman and employers, on which occasion all matters affecting common interest should be considered. Each branch of the printing business should have its separate meeting with employees. The annoyances produced during the last year by the strike have been caused by the attempt of a few union leaders to enforce impracticable rules which never would have been attempted if they had been fairly considered and discussed in primary meetings of separate printing-houses. The influence of one example of this kind in any town or city will be imitated in other printing-houses. Under this policy compositors will have a voice in the making of rules that they do not have now.

An insidious method of union leaders for extending the use of the union label is accomplished by persuading political, religious and humanitarian societies to have it attached to all their printing. Its use is urged with the assertion that it will largely increase the support of union men and their friends. In many instances the attachment of the union label is permitted by sheer indifference on the part of the publisher of the print. The effect intended by the union label is to produce the impression on the reader that the society permitting its use favors the closed shop and union teachings, which is seldom true. A proper way to defeat this scheme is to notify the society allowing its use on its printed work that it is the fixed purpose of typothetæ members not to subscribe to any paper, or aid or coöperate with any organization, however specious may be its claims, that takes this side in an affair that does not concern it, and assists a union in its demand for a monopoly of labor and the consequent proscription of free men who choose not to join a union. When societies find, as they surely will, that the union label repels more than it invites, its use will be discontinued. Respectfully submitted.

THEO. L. DE VINNE.

THE BEN FRANKLIN CLUB.

The Ben Franklin Club of Chicago continues to enlarge its membership, and at its third meeting at the Sherman House, on Thursday afternoon, August 9, many interesting speeches were made. The broad lines on which the club is founded makes it attractive to every printer, large and small. Here are its purposes:

The Ben Franklin Club does not want to know who you are doing work for, or the prices you are charging.

The Ben Franklin Club does not demand or require you to live up to any obnoxious rules, regulations or iron-clad agreements.

The Ben Franklin Club does not intend to fix prices for printers nor in any way, shape or manner interfere with the business of its members.

The Ben Franklin Club has a platform built upon broad, liberal and progressive lines, specifically designed to be of benefit to every owner and manager of printing offices.

The Ben Franklin Club has no rules to be lived up to — and consequently none that can be violated.

The Ben Franklin Club does intend to circulate educational information to its membership.

The Ben Franklin Club does intend to discuss costs — advantageous systems, etc., but the club does not intend to force its membership to live up to or adopt any system or method.

The Ben Franklin Club does intend to overcome abuses and discrimination and plundering of its members upon the part of certain supply houses.

The Ben Franklin Club does propose to get a line on dead beats, etc., who prey on printers.

The Ben Franklin Club does propose to make strenuous efforts to bring about trade improvement and it needs your encouragement and assistance, as it is only through and by organization methods that these aims can be accomplished.

A committee on credits whose duty it will be to collect information from the membership and prepare a list of undesirable customers is one of the features of the club. A program committee will also arrange for the business of the meeting and provide topics and speakers so that the time will be used to the greatest advantage and the discursiveness of the man with the grievance be minimized. Much interest was shown in the arrangements being made to urge paper-dealers to consider the printer as the legitimate customer to whom wholesale rates should be given, and to unite in an effort to curtail practices detrimental to the interests of the printing trade. A plan is under consideration for the free distribution of a uniform system of blanks for ascertaining cost. These will be the outcome of a systematic presentation of various blanks and plans, and the discussions on these it is expected will result in a composite which will be of a character to meet a great variety of office conditions. The proceedings of the meeting were characterized by snap and aggressiveness.

SEATTLE FRANKLIN ASSOCIATION.

The Seattle Franklin Association, Seattle, Washington, gave an "At Home" to employing members of the allied printing trades at the Royal Café on Saturday evening, July 21. The program by the Stuff Printing Concern was as unique as a Shrine announcement, and a four-page paper, *The Franklin Associate*, issued for the occasion, made free with the membership as only a printer can with

a fellow sufferer, *vide* the announcement on the *Associate*, which reads:

"The Franklin Associate," published by the Seattle Franklin Association, established in June, 1906, for the purpose of doing good to those who will stand for it — and those who won't — even if we have to pour it into them.

"If you can't be Frank, don't Associate."

Here's the glad hand of fellowship — and now it's up to you.

That's all.

The first feast of the Franklin Association of Seattle and its guests will be presided over by its worthy president, Elmer F. Conner, assisted by the Feed Fuglemen Harry Stuff, F. G. Drew, W. T. Bushnell, and the program parliament, Pliny Allen, A. K. Yerkes, Charles Kelly, H. W. Moulton.

Tardy guests will be allowed a half minute in which to crack the ice — then do their stunt without a grunt.

We reproduce one of the illustrations and the appropriate verses:



BY A. K. YERKES, POET PRO TEM. OF THE SEATTLE FRANKLIN ASSOCIATION.

This printer's name was Simon, and he struggled all his life
To make an honest living for his children and his wife;
He went to work at seven and quit when it was late —
And used to work on Sundays on jobs that wouldn't wait.

He died when he was forty, and he owed a paper bill
That ate his plant completely before it got its fill;
He left his family homeless, without a copper cent,
And he owed a piece of money for the payment of his rent.

Why was he so unfortunate? Why was he so unblest?
He had the brains and hustle — he stood most every test;
The trouble, though, with Simon was a lack of business sense
That made him figure PROFIT without counting in expense.

He got no pay for padding, of taxes did not think,
He never figured power, or rollers, rags or ink;
His rent was not included, nor telephonic pelf,
And he never charged a single cent for work he did himself.

He took the price of labor and added paper's cost,
And when the people asked him: "Say, are you doing well?"
He always answered promptly, "Say, I'm just doing swell,"
And charged the patron thusly, never counting that he'd lost.

Printers had got together to put our Simon right;
To help him get some profits and assist him in his plight;
But he wouldn't listen to them, was suspicious of the bunch,
So they couldn't educate him, even with the proper hunch.

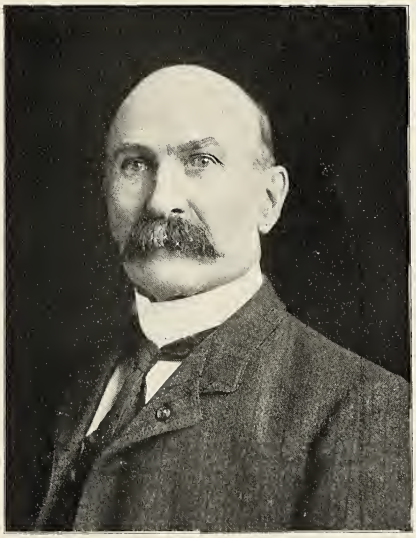
Written for THE INLAND PRINTER.

DISCIPLES OF FRANKLIN.

NO. X — DENNIS J. HYNES.

DENNIS J. HYNES was born in Ballyglass, County of Mayo, Ireland, March 17, 1841. He came to the United States in 1848 and went to school in Pittsfield, Massachusetts, a short time, and then emigrated "away out west" to Southport, Wisconsin Territory, now Kenosha, Wisconsin. On April 16, 1854, he took up a permanent residence in Chicago, commencing an apprenticeship on the *Democratic Press*, afterward merged with *The Tribune* as *Press and Tribune*, where he remained until the breaking out of the Civil War in 1861, when, in company with Maj. William H. Medill and many other printers who attained merited distinction in the field, he joined the Eighth Illinois Cavalry, commanded by Gen. John F. Farnsworth, and proceeded to the Army of the Potomac, in Virginia.

In the service he attained successively the rank of second lieutenant, first lieutenant, adjutant and captain in his regiment. He was appointed by Gen. E. V. Sumner, commanding the Second Army Corps, an aide-de-camp on his personal staff; by Gen. "Dick" Richardson, provost-marshal of his division; by Gen. Alfred Pleasanton, commanding the cavalry corps, an aide-de-camp; and by General Farnsworth, assistant adjutant-general of his brigade. He participated in all the engagements of the



D. J. HYNES.

Army of the Potomac up to 1864, and fortunately escaped with but slight wounds, which in nowise incapacitated him for service.

In February, 1864, he resigned from the Eighth Illinois Cavalry to accept promotion as lieutenant-colonel in the Seventeenth Illinois Cavalry, and was ordered with his regiment to the Department of the Missouri under command of General Rosencrans, where he was appointed Chief of Cavalry of the District of North Missouri. On October 14, 1864, he was engaged in the battle of Glasgow,

Missouri, in the celebrated "Price Raid," was captured there, but escaped and joined his regiment (which was not engaged at Glasgow) and assisted in the pursuit of General Price in Missouri and Kansas, until he was driven south of the Arkansas river and the pursuit abandoned.

On May 10, 1865, he was ordered to Chalk Bluff, Arkansas, where he compelled the surrender of the Confederate General, M. Jeff. Thompson — being the first surrender to take place west of the Mississippi river. Thence he proceeded on the "Plains" to stand against the returning Indians from Gen. Ben McCulloch's Confederate army, and established posts at Dodge City, Humboldt and Council Grove, Kansas, but there was practically little to do, and the regiment was ordered to Springfield, Illinois, for muster-out early in 1866, Colonel Hynes retiring from the service with the "brevet rank of colonel for gallant and meritorious services during the war."

In civil life, Colonel Hynes was elected mayor of Kenosha, Wisconsin, and served in that capacity during the term of 1866-7, notwithstanding he was a citizen of Chicago when elected. He then moved to Missouri, settling in St. Louis, where he engaged in the wholesale fruit and fancy grocery business, and also as cashier of the Bank of North America.

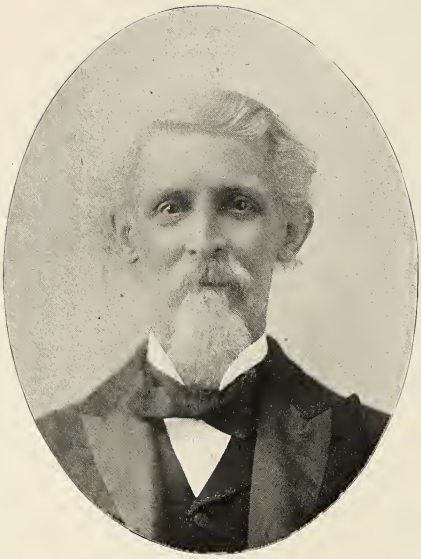
From early young manhood Colonel Hynes enjoyed the close friendship of Mr. Joseph Medill, and was sent for by him in 1892 to take a position in the *Tribune*, which he filled until 1903, when he became connected with the county treasurer's office, where he is now engaged. While connected with the *Tribune* he was entrusted by Mr. Joseph Medill with the important duty of carrying into effect his long cherished plan of erecting a monument in Lincoln Park to Benjamin Franklin, printer. This was accomplished with most appropriate and imposing ceremonies, and ample provision made for its continuous care and preservation.

Colonel Hynes is a member of the Chicago Typographical Union, the Old-Time Printers' Association, the Eighth Illinois Veteran Cavalry Association, the Seventeenth Illinois Veteran Association, the Grand Army of the Republic, the Western Society of the Army of the Potomac, the Illinois Commandery of the Loyal Legion of the United States, and a Knight Templar Mason.

HENRY J. WENDORFF.

When we pause to consider the prominence and importance of newspaper work in this country we can not but recognize the value and intelligent labor expended upon this branch of art by its pioneers and expounders. Among those who early appeared in this field, and whose names are indelibly associated with the triumphs of the color press, is Henry J. Wendorff. Indeed, Mr. Wendorff's name easily stands at the head of the list as a pioneer of real achievement, whose reputation has grown with the marvelous growth of the color press, and who to-day, still in harness, at the head of one of the foremost pressrooms in the world, may well form an instructive theme for those interested in this constantly enlarging field of enterprise.

Mr. Wendorff was born in Germany in 1843 and came to this country in 1854 with his parents. His father was a well-to-do business man in the old country, with six sons, but thought that America was a better field for his boys. He settled in Cleveland, Ohio. Six months after his arrival, Wendorff pere lost everything in the Canal Bank of Cleveland, and died a year later, consequently little Henry was obliged to seek employment. He obtained a position during the year 1856 with the Cleveland *Herald* as office boy, but office work did not appeal to him. He made up his mind that he wanted to be a printer and soon entered on his career as a roller boy for a hand press in the same office and was allowed to feed the cylinder press to fill vacancies; at the breaking out of the war got a press to run, and later was appointed foreman of the pressroom, which position he held until 1863, when, like all printers in those days, he decided to roam about and see how work was done in other cities. He held positions in Detroit, Toledo, Cincinnati, LaFayette, Indiana, and in 1865 settled in Chicago, where he took charge of Horton & Leonard's Gordon presses. He was soon made foreman of the pressroom, and as Horton & Leonard at this time began to do railroad printing, and color show cards became very popular, he



HENRY J. WENDORFF.

preferred to do the presswork, especially colors, and therefore took back his two old Potter drum presses (his pets) and devoted his time to artistic printing, which position he held until 1892, when he left to take charge of the web color press at the *Inter Ocean*. The press used for the colorwork was the first web color press and had a number of crudities which prevented the accomplishment of perfect work, but the results attained by Mr. Wendorff at that time, handicapped as he was, formed the nucleus from which has been developed the present-day web press color-printing. The difficulties with which Mr. Wendorff contended in those days, however, have been entirely overcome by means of the improved presses which have since been developed and constructed by the press builders.

Eleven years ago Mr. Wendorff received a call to the New York *World*, and immediately entered upon the heavy tasks imposed by metropolitan labor in a field rendered increasingly difficult by the stress of unexampled competition.

His record in the *World* pressroom has been of the finest. No better newspaper colorwork is done in this country. Immense editions have been handled with a rapidity undreamed of half a decade ago, and the product shows no evidence of the difficulties encountered. Halftones are printed with remarkable clearness and smoothness; the colors are printed with a beauty of impression that once was thought to be unattainable in any rapid rate of presswork. *(To be continued.)*

The Land of the Pueblo Indians

An Interesting Country



Issued by the
Chicago & Colorado Railway
1906

PRESSROOM

BY JOHN E. CASHION.

This department receives frequent requests for half-tone overlays and progressive sheets for three-color work. In the future THE INLAND PRINTER will supply cut overlays of suitable subjects at a nominal cost for the time consumed in preparing such work. Pressmen who are anxious to apply specimens to actual work in hand should forward cuts by mail or express. Explanations and answers to inquiries will be sent with all specimens. The work is in charge of an expert who understands and appreciates the different requirements of various subjects.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PHOTOTRICHROMATIC PRINTING.— See Process Engraving.

PRESSWORK.— By William J. Kelly. A manual of practice for printing-pressmen and pressroom apprentices. New enlarged edition. Cloth, $1.50.

THE HARMONIZER.— By John F. Earhart, author of "The Color Printer." A book of great value to any printer who prints on tinted or colored stock. Cloth, $3.50.

TYMPAN GAUGE SQUARE.—A handy device for instantly setting the gauge pins on a job press. Saves time and trouble. Made of transparent celluloid. Postpaid, 25 cents.

THE THEORY OF OVERLAYS.— By C. H. Cochrane. A practical treatise on the correct method of making ready half-tone cuts and forms of any kind for cylinder presses. Revised edition, 25 cents.

OVERLAY KNIFE.— Flexible, with a keen edge, enabling the operator to divide a thin sheet of paper very delicately. Blade runs full length of handle, which can be cut away as knife is used. 25 cents.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

PRACTICAL GUIDE TO EMBOSSING.— By James P. Burbank. Contains instructions for embossing by the various methods applicable to ordinary job presses, and much information not hitherto accessible. 75 cents.

A CONCISE MANUAL OF PLATEN PRESSWORK.— By F. W. Thomas. A thoroughly practical treatise covering all the details of platen presswork, for the novice as well as the experienced pressman. All the troubles met in practice and the way to overcome them are clearly explained. 32 pages. Price, 25 cents.

PRINTING ON CIGAR-BOX LABELS.— M. B. P., New Albany, Indiana, writes: "Being a constant reader and admirer of your valuable journal, we take the liberty of asking you why we have trouble with the ink in overprinting fancy litho. cigar-box labels, coated paper. The ink creeps and looks mottled. We have tried several kinds and on some the varnish comes to the surface and stands out as though it had been gone over with a varnish brush." *Answer.*— A good black ink is necessary to print on highly glazed paper or over work which has been varnished, costing about $2 or more a pound for the best results. We suggest that you get a firm-bodied ink, short in tack; use a hard packing and carry a fairly strong impression.

A CRITICISM.—W. E. D., Norfolk, Virginia, writes: "I would like to know if the details of the enclosed samples are brought out as they should be. They were printed on a three-roller Gordon press." *Answer.*— There is much room for improvement in the specimen submitted. The detail appears flat and the high lights show defective overlaying. Vignetted cuts usually require a three-ply cut overlay to bring out the detail properly, and this should be made of hard book paper 25 by 38 — 60 pounds to the ream for best results. In addition to the cut overlay, a carefully constructed mark-up sheet is also necessary to bring up the weak points, after the cut overlay has been applied. Use only enough pressure to get the desired effect, as too much impression is often the cause of cuts printing with thick edges.

ADJUSTING THE SHEET BANDS.— G. M. W., Akron, Ohio, writes: "Will you kindly tell me through the columns of THE INLAND PRINTER the correct method of setting the sheet bands so as to hold the sheet firmly and evenly to the cylinder?" *Answer.*— In setting the sheet bands, run the press around where the grippers are opposite the bands. Loosen the bands and move them along the rod so as not to touch the grippers or shoo-fly fingers. Now move the press forward to a point where it is ready to take an impression, and set the bands to the cylinder. Take a strip of cardboard, three-ply, one inch wide and about four inches long, and place it between the bands and the cylinder and set them firmly up to this card. Then test the setting by moving the card up and down as the adjustment is being made. The bands should be set to as near the same pressure against the sheet as possible. It sometimes becomes necessary when running forms composed of fine rules, vignetted cuts and close register work, to hold the sheet more firmly to the surface of the cylinder during the printing stroke. This can be done by placing a tape around the cylinder between the center margins of the form, fastening it to the rod which supports the sheet bands and tacking it to a convenient point beneath the feed-board at the rear end.

TO PREVENT JOB-PRESS ROLLERS FROM JUMPING.— L. G. H., Peoria, Illinois, writes: "Can you suggest a remedy which will do away with the bother of rollers jumping when passing over the form on job presses? It is almost impossible for us to have rollers made that are exactly the right size of the 'journals' as they are invariably a little larger, with the result as above mentioned. The rollers are well seasoned and in fine condition, but it is impossible to turn out satisfactory work where rollers do not pass over the form evenly." *Answer.*— You can avoid all the trouble you complain of if you will provide roller bearers and lock them in the chase with the form to be printed. These bearers fit up against the inside of the chase, the broad lip of the bearer extending over the rim of the chase and in no way interfering with the lock-up of most forms. In case of emergency (and to assist in raising the rollers to the proper height, even when roller bearers are provided), you can obviate the jumping of rollers by pasting strips of cardboard on the tracks which support the trunnions. These expedients support the rollers as they pass over the face of the form and compel them to revolve as well, no matter whether the trunnions are smaller in circumference than the inking rollers or not. Composition rollers will last much longer when supported in this manner, as they are not liable to severe contact with the edges of the form.

TRANSPARENT TINTS NECESSARY.—H. G., St. Louis, Missouri, sends several specimens of half-tone work in two colors, regarding which he writes: "I am having some trouble in getting the desired results on the enclosed subjects. The block was run first as is generally done on work of this nature, but when the tint is applied it makes the black appear dead. I have tried several shades of tints for the last color, with the same results." *Answer.*— The trouble lies in the tint base employed. Where tints are to be worked over other colors, a transparent tint base should be used and only enough of the solid color added to get the desired shade. In this case, a solid white has been used in making the buff and blue tint and should

have been run first. Several preparations are on the market for making transparent tints, such as Lakatine mixing, White Gloss compound, etc. These are generally used, except when a gloss tint is desired. By the use of Lakatine, blues, greens and reds may be run over black in almost their full shade of color without affecting the black. Lakatine is also a valuable medium for making tints which are to be run first, owing to their free working. Then too, a half-tone may be printed as finely over tints of this kind as on smooth stock and this can not be done when solid whites are used as the tint base. Where tints appear mottled and pile up on the form while running, the admixture of a small quantity of heavy varnish will help to draw it out more smoothly and also prevent the tint from rubbing off when dry.

appear too strong in pressure, etc. It is next important that the operator should understand the inks thoroughly as to drying and at what time the next color should be applied. The yellow, which is the first color, should usually be run full in color and may have all the time necessary in which to dry, as it seldom gives any trouble from drying too hard; in fact, it is more likely that the yellow will rub off on highly finished papers. It is also the foundation of the picture and too much or too little a quantity of yellow will change the effect. The red is the most difficult color to print, as pressmen who are not familiar with process printing most invariably carry too much red. Then the time required for drying in of the red is very difficult to solve, this varying considerably according to the nature of the stock and the condition of the yellow when



Photo by Count I. F. S. Von Rome.

MOUNT MACKENZIE, CLINTON RIVER, HEAD OF LAKE TE ANAU.

THREE-COLOR WORK.—H. J. S., St. Paul, Minnesota, sends several specimens of three-color work, and writes: "I have had considerable difficulty in getting the desired effect on the enclosed samples. The specimen marked No. 1 was followed closely one color upon the other, only allowing them to dry over night when the next color was applied. The one marked No. 2 had two days' time in which to dry, but the effect is not much better." *Answer.* — You have fallen into the usual error of carrying too much red, and on proof No. 1 this color had not dried sufficiently when the blue was printed. Then too, the stock upon which the job was printed is not suitable for three-color half-tone work, being too soft and poorly finished for best results. When running three-color work, the pressman should have a full set of progressive proofs before him at all times, that he may compare them with a sheet of the regular run and make such corrections as may be necessary, such as too much ink, or relieving points that the red is applied. If the red is wet, the blue will absorb and the red will show through; if it be too hard and crystallized, the blue will mottle and not lift. In either case a heavy ink (blue) will usually work to better advantage than an ink which is thin in body. When running the red it is advisable to add a small quantity of ink-softener, or reducing compound, to the ink, which will prevent it from drying too quickly. There is little difficulty in printing the blue, provided of course that the red and yellow have been properly worked and lie smoothly. A large percentage of gloss varnish may be added to the blue where a highly finished print is desired.

A NEW booklet of letter-head specimens has just been issued by The Inland Printer Company. It is called "Specimens of Letter-heads, No. 2," and contains thirty-one ideas for letter-heads, nearly all being in two colors. The price is 50 cents.

PROOFROOM

BY F. HORACE TEALL.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

PUNCTUATION.— By John Wilson. For letter-writers, authors, printers, and correctors of the press. Cloth, $1.

PENS AND TYPES.— By Benjamin Drew. A book of hints and helps for those who write, print, teach or learn. Cloth, $1.25.

BIGELOW'S HANDBOOK OF PUNCTUATION gives full information regarding punctuation and other typographical matters. Cloth, 50 cents.

ENGLISH COMPOUND WORDS AND PHRASES.— By F. Horace Teall. A reference list, with statement of principles and rules. Cloth, $2.50.

PUNCTUATION.— By F. Horace Teall. Rules have been reduced to the fewest possible, and useless theorizing carefully avoided. Cloth, $1.

COMPOUNDING OF ENGLISH WORDS.— By F. Horace Teall. When and why joining or separation is preferable, with concise rules and alphabetical lists. Cloth, $1.25.

TYPOGRAPHIC STYLEBOOK.— By W. B. McDermutt. A standard of uniformity of spelling, abbreviating, compounding, divisions, tabular work, use of figures, etc. Vest-pocket size. Leather, 76 pages, 50 cents.

THE ORTHOEPIST.— By Alfred Ayres. A pronouncing manual, containing about 4,500 words, including a considerable number of the names of foreign authors, artists, etc., that are often mispronounced. Revised and enlarged edition. Cloth, 18mo, $1.34, postpaid.

THE VERBALIST.— By Alfred Ayres. A manual devoted to brief discussions of the right and wrong use of words, and to some other matters of interest to those who would speak and write with propriety. Includes a treatise on punctuation. Cloth, 4¾ by 6½, $1.32, postpaid.

VEST-POCKET MANUAL OF PRINTING.—A full and concise explanation of all the technical points in the printing trade, including chapters on punctuation, capitalization, style, marked proof, corrected proof, proofreaders' marks, make-up of a book, imposition of forms. Leather, 86 pages, 50 cents.

ONE HUNDRED AND THIRTY-FIVE THOUSAND WORDS SPELLED AND PRONOUNCED.— By John H. Bechtel, author of "Handbook of Pronunciation," "Synonyms," "Slips of Speech," etc. For practical needs of busy people and for quick reference this book will be found invaluable. 614 pages; cloth, $2.00; leather, $2.50, postpaid.

PEERLESS WEBSTER DICTIONARY.—A new vest-pocket dictionary based on the International. Over fifty-one thousand words; rules for spelling, punctuation, capitalization; tables of weights and measures, parliamentary law, postal information, bankruptcy law, etc. Printed from new plates. Full leather, gilt, 50 cents.

PROOFREADING AND PUNCTUATION.— By Adèle Millicent Smith. A manual of ready reference of the information necessary in ordinary proofreading, with chapters on preparing copy, reading proof, typefounding, sizes and styles of types, typesetting, jobwork, paper, technical terms, reproductive processes, etc. Cloth, 183 pages, $1.

CORRECT COMPOSITION.— By Theodore Low De Vinne. Second volume of the series on "The Practice of Typography." A treatise on spelling, abbreviations, compounding, division, proper use of figures and numerals, italic and capital letters, notes, etc., with observations on punctuation and proofreading. Cloth, 12mo, 476 pages, $2.14.

GRAMMAR WITHOUT A MASTER.— By William Cobbett, carefully revised and annotated by Alfred Ayres. For the purpose of self-education this book is unrivaled. Those who studied grammar at school and failed to comprehend its principles, as well as those who have never studied grammar at all, will find it especially suited to their needs. Cloth, 4¾ by 6½, $1.07, postpaid.

THE ART OF WRITING ENGLISH.— By J. M. D. Meiklejohn, M. A. A manual for students, with chapters on paraphrasing, essay-writing, précis-writing, punctuation, etc. Analytical methods are ignored, and the student is not discouraged by a formidable array of rules and formulas, but is given free range among abundant examples of literary workmanship. The book abounds in such exercises as will impel the student to think while he is learning to write, and he soon learns to choose between the right and wrong in linguistic art and expression. Cloth, 12mo, $1.50.

A DIVISION.— J. E. M., Steelton, Pennsylvania, writes: "Please tell me how to divide the word necessary. Is it proper to divide it ne-cessary?" *Answer.*— Almost everybody divides it nec-essary, and of course the people who do so think that is the proper way. A few, however, make it ne-cessary, and that is just as proper from their point of view. It is a point of very slight importance, but it is convenient to have a settled practice, and the first of the two ways is in keeping with the common rule that a syllable with a short vowel must have a consonant after the vowel to show the proper sound. Another reason in favor of the three-letter syllable in this word is that it indicates with certainty what word it is part of. Bigelow's "Handbook of Punctuation" gives this rule in favor of the division mentioned in the question: "The *c* or *g* should never be separated from the *e*, *i*, or *y* on which its soft sound depends; as, ne-ces-sa-ry, ca-pa-ci-ty, re-joi-cing, re-li-gion." But Mr. Bigelow did not keep to one kind of division that should go with the last word here cited, for he divides de-cis-ion, meas-ure, etc., where the sound of the *s* depends just as much on the following vowel. In fact, what is here called a common rule is only common, not universal; often a syllable must end with a short vowel, for instance in words that end with tion, etc. As a matter of fact, no one has yet formulated a system of syllables that can with propriety be called even the best, because every one leaves some points of conflict, some of one kind and some of another. The division questioned can not be said absolutely to be improper, but it is not nearly so much used as the other is.

COMPOUNDS.— How often is the question asked in the composing-room whether a certain term is a compound word or not? And how is the question determined? Does not the answer depend on the style of the office in each case, and is it not true that no office has such a fixed style that the question need seldom be asked? No, this is not quite true, for I know of one office where every worker who had been there long knew almost always just what to do. The way of it was that the proofreader kept a full list of every term that had been decided, adding each new form as it occurred. But even such laborious recording would never come to an end, for there are forty thousand or more terms in the dictionaries that are subject to doubt, not half of which are printed in the same form by anywhere near everybody. Now it certainly is important to compositors to be able to know pretty nearly how to set their type, and

Annual Banquet
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Wednesday Evening
May 14, at 6 o'clock

this question of compounding is surely as troublesome as any detail of their work. Suppose the proofreaders in the office mentioned had had a printed list at hand — or, better, that each one had a copy of it. Of course the maker of such a list would have to use the forms that seemed best to him, and of course every one using the list would find many words compounded in it which he would prefer to have as two words or as one word. It is simply impossible for one person to get all the forms just the same as would be



chosen by any other person who might make a list containing exactly the same terms. For instance, I am using here the single word proofreader (because the printers of the magazine want it so); some people make it compound, proof-reader, as I do when I have it my own way; and it would not be hard to find it printed two words, proof reader. Evidently, the maker of the list could not please all three kinds of thinkers; he would use the one of the three forms that he thought best; but is that any reason why the list should not be useful to the other people? Each user of it could mark a change where needed, and by so doing have his record in shape to help him keep the forms chosen somewhere near uniform. Would not this be advantageous everywhere? We feel at liberty to make this suggestion, because we do not know of any other plan or device that worked comfortably or satisfactorily.

How to Use the Dictionary.— All dictionaries have some weaknesses — it is simply impossible to make one so that no one can find fault with it. The Standard contains so much that many words had to be run together in groups, so that some of them do not appear in their regular alphabetical order. One man wrote to a newspaper that he had thought of buying the Standard, but did not buy it because it did not have the word bifurcate in it; but the word is in it, in one of the groups. A similar blunder was made by an editor in answering a letter about a word, as follows: "Had the necessity of defending or apologizing for the word 'transmogrification' been foreseen, it probably would not have been used in this column — certainly not without the preliminary acquisition of a better right to employ the term than was given by a vague impression that it had occasionally been employed before by folks who presumably knew what they were about. Used it was, however, and next day — yesterday — came a rather severely courteous letter, declaring that 'transmogrification' was a word absolutely strange to the writer's ear. 'Upon consulting Webster and the Standard Dictionary, the only ones at my disposal,' continued the critic, 'I find that neither contains this word. Will you enlighten me as to its exact meaning and root, and favor an old reader and friend?' That was distinctly alarming, for this column is hardly a fitting place for displays of neologistic ingenuity, and 'transmogrification' is obviously without any justification at all unless it has that of authority. Hurried investigation reveals, we are delighted to say, that the word is all right, so far, at least, as regards the company it keeps, though it is, to be sure, a rootless thing, and a bit uncertain in meaning. The Standard does, indeed, scornfully ignore the word's existence, for reasons best known to itself, but our edition of Webster recognizes it, not unkindly, and the Century, which doesn't even know what a philological scruple is, makes, of course, no bones whatever about letting it in. The quotations given show that among others who have found the word to their minds are Fielding, Thackeray, and that Scott, not greatest of the name, but still great, who wrote 'Tom Cringle's Log.' Would our critical correspondent ask for better authorities than these?" It is surprising that any intelligent man should look in a dictionary for a word which is there and then assert that it is not there. But it is much more surprising that an editor should say that the Standard scornfully ignores the word, for it does not do so. The word is there, as it is in all the dictionaries.

PAPER FROM COTTON STALKS.

The manufacture of paper from the fiber of the cotton stalk is one of the latest inventions which are said to have passed the experimental stage. It is asserted that all grades of paper, from the best form of linen to the lowest grade, can be manufactured from cotton stalks. In addition to this, a variety of by-products, such as alcohol, nitrogen, material for guncotton and smokeless powder can also be secured in paying quantities. Mills for the use of cotton stalks in that way may become general in the cotton-growing States. It is estimated that on an area of land producing a bale of cotton at least one ton of stalks can be gathered. Upon this basis, from ten million to twelve million tons of raw material could be secured for the production of paper, which would increase the value of the South's cotton crop nearly $10,000,000.

According to a letter in the *Manufacturer's Record*, of Baltimore, a company has been organized under the laws of Maine, with a capital stock of $15,000,000, preferred and common, for the purpose of manufacturing pulp and paper from cotton stalks. Mr. Harvie Jordan, president of the Southern Cotton Association, has been elected president.— *Scientific American.*

The man who refuses to buy a diamond because it is an article of luxury, looks at the matter differently when presented to him as a fitting expression of an ennobling sentiment.— *Mahin's Messenger.*

Do you desire "something different" in letter-heads? "Specimens of Letter-heads, No. 2," contains it. To be had of The Inland Printer Company for 50 cents.

MACHINE COMPOSITION

BY JOHN S. THOMPSON.

Communications relating to typesetting by machinery are invited. All queries received will be promptly answered in this department. Address, The Inland Printer Company, 120-130 Sherman street, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

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THE LINOTYPE, 1897. By Frank Evans, 100 pages. $3 postpaid.

FACSIMILE SIMPLEX KEYBOARDS.— Printed on heavy ledger paper. 15 cents.

THE LINOTYPE OPERATOR'S COMPANION.— By E. J. Barclay. 64 pages. $1, postpaid.

LINOTYPE OPERATOR-MACHINIST'S GUIDE.— By S. Sandison. 36 pages, vest-pocket size. Price, $1.

STUBBS' MANUAL.— By William Henry Stubbs. A practical treatise on Linotype keyboard manipulation. Cloth, 39 pages, $1.

THALER KEYBOARD.— An exact counterpart of the latest two-letter Linotype keyboard, made of metal and with movable keys; a practical device to assist Linotype students. Price, $4, plus expressage, 55 cents.

CORRECT KEYBOARD FINGERING.— By John S. Thompson. A pamphlet of 16 pages, containing a system of fingering the Linotype keyboard for the acquirement of speed in operating, with diagrams and practice lists. 25 cents.

FASCIMILE LINOTYPE KEYBOARD.— An exact reproduction of the latest two-letter Linotype keyboard, showing position of small-caps., etc. Printed on heavy manila stock. Location of keys and "motion" learned by practice on these facsimiles. Instructions are attached, giving full information as to manipulation. 25 cents, postpaid.

MODERN BOOK COMPOSITION.— By Theodore Low De Vinne. Fourth volume of the series on "The Practice of Typography." A thoroughly comprehensive treatise on the mechanical details of modern book composition, by hand and machine, including valuable contributions on Linotype operating and mechanism. Cloth, 12mo, 477 pages, $2.

HISTORY OF COMPOSING MACHINES.— By John S. Thompson. A comprehensive history of the art of mechanically setting type, from the earliest record — 1822 — down to date; descriptions and illustrations of over one hundred different methods. A complete classified list of patents granted on typesetting machines in both Great Britain and the United States is given. This is a revision of the articles, "Composing Machines — Past and Present," published serially in THE INLAND PRINTER. 216 pages. Bound in full leather, soft, $3; cloth, $2; postpaid.

THE MECHANISM OF THE LINOTYPE.— By John S. Thompson. Revised Second Edition, 1905. The standard text-book on the Linotype machine. Full information and instructions regarding the new Pica and Double-magazine Linotypes. Every adjustment fully described and illustrated, with additional matter concerning the handling of tools, etc. A full list of technical questions for the use of the student. Fifty illustrations. Twenty-nine chapters, as follows: Keyboard and Magazine, Assembler, Spaceband Box, Line-delivery Carriage, Friction Clutch, First Elevator, Second-elevator Transfer, Second Elevator, Distributor Box, Distributor, Vise-automatic Stop, Mold Disk, Metal-pot, Pump Stop, Automatic Gas Governors, The Cams, How to Make Changes, The Trimming Knives, Erecting a Machine, Two-letter Attachment, Oiling and Wiping, The Pica Machine, Double-magazine Machine, Plans for Installing, Tools, Measurement of Matter, Definitions of Mechanical Terms, List of Adjustments, List of Questions, Things you Should Not Forget. Bound in flexible leather for the pocket, making it handy for reference. 218 pages. Price, $2, postpaid.

PRONUNCIATION OF "LINOTYPE."— F. C. Newell, Denver, Colorado, writes: "I note that the last *Typographical Journal* seeks to perpetuate the error of pronouncing Linotype with a short 'i.' This word was coined, adopted and registered as a trade-mark by the Mergenthaler Linotype Company, and they insist upon its correct pronunciation, 'Line-o'-type.' I respectfully submit the following article, published in *The Linotype Bulletin* (Mergenthaler Linotype Company, New York), issue of November, 1904, in reply to 'Tip' of the New York Press: 'Mr. Tip is mistaken, and so is that good book, the "Standard Dictionary." At first glance the argument and explanation given by Mr. Tip seem logical, and as a general proposition the rules of phonology are followed in pronouncing words. To the student who is studying the English language, however, the exceptions to phonetic pronunciations seem so frequent as to scarcely justify the rules. Words which are pronounced differently from the spelling are too numerous to mention. If there were no better reason, the word would be pronounced 'Line-o'-type,' because all those having knowledge of or interested in the machine, and practically every printer in the world is interested in it either directly or indirectly, have always so pronounced it. There are, however, other and weightier reasons. The machine, as Mr. Tip correctly states, does not set type, but produces a metal bar or slug upon which the characters stand in relief. The bar or slug is a complete substitute for a line of type and can be printed from in the same manner. It is to all intents and purposes a line of type welded together. The word Linotype was coined and adopted by this company not only to name the machine, but at the same time tell briefly and plainly what the work of the machine was. If the word is to be pronounced Lin-o'-type (short 'i') it is not only meaningless but perverts both the meaning and the intention. It were as well to have named it Smith; it would certainly mean as much. Mr. Tip, the Standard Dictionary and others to the contrary notwithstanding, the word is ours, and we shall continue to pronounce it 'Line-o'-type.'"

CLAIMS THE CHAMPIONSHIP.— William Henry Stubbs, of the Baltimore *Sun*, writes as follows: "In the August number of THE INLAND PRINTER appears an article in which it is stated that Mr. C. A. Nichols, of the Salt Lake *Herald*, on July 1 broke all Linotype speed records, setting 106,300 ems nonpareil corrected matter for the paper in eight hours. It is also stated that the previous world's record was held by Mr. G. W. Green, he having set 96,000 ems in competition in Chicago in 1896. The *Sun* (Baltimore) Almanac of that year (page 46) gives Mr. Green's record as 70,700 ems corrected nonpareil matter, in seven hours, and Eugene Taylor, of Denver, his opponent's, as 64,027 ems. The details in the account of Mr. Nichols's record are so meager as to leave one in doubt as to how it



WILLIAM HENRY STUBBS.

was made, and as I claim to hold the legitimate world's speed record I am naturally interested as to just how it was done. Was it solid nonpareil, or nonpareil on a minion or brevier slug, with the leads, heads and dashes thrown in, as is usually the case in all 'hook' records? What system of measurement was used? It is said that the matter when measured totaled 340 inches and that more than 4,088 lines were cast. In the illustration with Mr. Nichols at the machine the knife-setting device apparently indi-

cates a minion slug, and if the record was made under these conditions, or with leads, heads and dashes, and computed on a basis of twelve lines to the inch (minion body would be a fraction over ten lines to the inch), it would be manifestly an unfair and incorrect system of measurement. Did Mr. Nichols take his copy from the hook or have it brought to him and have somebody dump his stick? These are vitally important points which are not touched upon in the account. The speed of the machine is given as nine lines a minute. At thirteen picas' measurement, which is the usual newspaper measure, the machine would produce 14,040 ems nonpareil an hour, or 112,320 ems in eight hours. Mr. Nichols is alleged to have set 106,300 ems, making his own corrections. It will be seen from this that Mr. Nichols lost only about 6,000 ems on the capacity of the machine for the eight hours (an average loss per hour of about 750 ems, or twenty-nine lines). When it is taken into consideration that the machine was running at nine lines a minute, that Mr. Nichols made his own corrections and that a certain loss must be allowed on the capacity of the machine, it will be seen that this record was utterly impossible on the actual solid nonpareil line count system of measurement, which is the only measurement that shows the true product of the machine after corrections have been made. There is no operator in the world who can get the full capacity of the machine, no matter at what casting speed it is running. Then how was this record made? This is a matter that will interest the operators of the country. During the past few years and prior thereto numerous alleged 'world's records' have been established 'off the hook,' either by the linometer or clock system of measurement, which registers corrections and all, or by the other method of phat — that is, the leads, heads and dashes thrown in. I fail to see how these can legitimately be called 'world's records.' All the real world's records, either by hand or machine, have been made in competition, with set rules governing the contest and with both competitors on the same basis. This, in my opinion, is the only fair test of speed and skill when it comes to world's records. I claim the world's legitimate and best speed record — made in competition in Philadelphia, October 3, 1899. In that contest, with the casting mechanism running 102 revolutions, or nine and one-quarter lines, a minute, I set 66,717 ems corrected solid nonpareil matter (error lines were corrected and revised proof taken), thirteen and one-half picas measurement (no leads, heads or dashes), in five hours and thirty-three minutes, an average of 12,021 ems per hour. The contest was for a purse of $900 and was scheduled for seven hours, but my opponent, seeing defeat was inevitable, gave up at the end of the time mentioned. A full and detailed account of this contest may be found in the 1899 Christmas number of THE INLAND PRINTER and the November or December issue of the *Typographical Journal* of that year. On the strength of this performance a gold medal was given to me, on which is inscribed my name and the title 'Champion Linotype Operator of the World,' together with my record. My friends issued a challenge for $1,000 a side for a seven-hour contest against any operator in the world, but it was never taken up."

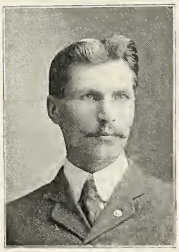
MAKING A MACHINIST-OPERATOR.— A recent graduate of the Inland Printer Technical School on completing his course was sent to a job in a near-by city and writes: "I certainly struck a nice bunch here. The fellow on the double-decker told me that if I needed assistance I should call on him. I think I will make a clean-up on the machine. I found that the alignment was 1-32 instead of 1-64 and I changed that, and as I was doing that, the fellow on the double-decker asked me what I was doing and I told him. He showed me some books that gave the measurement as 1-32; then to prove it we went to his double-decker and it was 1-64 and he was satisfied. They have the cams, gearing and rollers all covered with oil and it doesn't look good with the dust gathering on it, so I guess I will clean them, if I have to do it on my own time. We were not told to oil the cams and I noticed that the cams on the machines in the school were not oiled and now I see the reason why they should not be oiled. I think the cam rollers will wear in certain places on account of getting gummy and sliding along, instead of turning on the cams. The keyboard also takes quite a heavy touch, and before I go very far on it, I think I can remedy that. I think all it needs is cleaning, otherwise the machine works good."



W. P. SAYRE.



F. T. BANGS.



G. E. MEGOW.



C. J. ELLIOTT.

RECENT GRADUATES MACHINE COMPOSITION BRANCH, INLAND PRINTER TECHNICAL SCHOOL.

BENDING OF MATRIX EARS.—W. H. S., Shenandoah, Iowa, writes: "Enclosed are some of our matrices. I have tried to adjust the elevator, which I think is causing the trouble, so that the ears of the matrices would not be bent or sheared. But I have not been very successful in that way. Nearly all of the lower-case 'i's' have their ears bent so that they do not drop down the channels of the magazine as freely as they should. Another trouble is to get the slugs to trim correctly. I use a micrometer, but can not set the trimming knives close enough together so as to trim the slug as thin as it should be. If the knives are set so as to trim the slug within .002 of an inch of the correct thickness, the knives are so close together that the machine is stopped by the slug sticking during the trim. I enclose the slug. We set thirteen ems most of the time on this machine, and you can see that the mold is worn where the thirteen em cast is made. Our slugs also seem to be cold on the right-hand side of the mold, and the result is that the pressman has a hard time to make that

end of the slug show up on the press as it should. Please tell me how to remove the mouthpiece." *Answer.*— The cause of the destruction of matrices in your machine is not to be found in the first elevator, but in the distributor box. The trouble is due to failure of the matrix lift to raise the matrices high enough to clear the inclined rails. This adjustment is made by the screw in the matrix lift lever; simply adjust it so the lift drops low enough to pick up a matrix. It will then raise all of them high enough to clear. Your slug is not being trimmed on the smooth side, and the left-hand trimming knife should be set closer to remove the underhang of the characters. When this is properly set you will have no trouble in adjusting the rib trimming knife to take off the required amount of metal. If you will get a copy of "The Mechanism of the Linotype," all these adjustments will be perfectly plain and it will prove a valuable help to you. Instead of the metal ment of the hands is of course necessary, but the object of the system described in the book, "Correct Keyboard Fingering," is to minimize the movement as much as possible. The main thing is to operate the keyboard without looking at the keys, and in order to secure this result, each word must be printed as soon as read and no sentences memorized in advance. Repetition of certain words and phrases is the best kind of practice.

WHAT DOES LINOTYPE COMPOSITION COST?— A subscriber sends the following clipping from a newspaper and asks the above question. A full discussion will benefit all concerned and it is hoped our readers will give freely their opinions on the matter. The advertisement reads:

LINOTYPE COMPOSITION.— Newspaper Publishers, Notice.— Linotype operator-machinist, owning machine plant, will contract with reliable publisher for thirty-five to fifty thousand daily, newspaper composition, eight-point or smaller, at 19 cents per thousand ems, solid; will move plant to publisher's building or convenient location; publisher to furnish only copy and read proofs; town must have gas and electric power; or, if publisher will furnish space for machine, power to run same, read proofs, have galleys proved and corrected lines inserted, will set for 15 cents per thousand.

That it is remunerative to set type at any such figure our correspondent denies; that it is likely the advertiser will find himself looking for a job as operator-machinist for some one else, if these prices are persisted in, he affirms. The cost of Linotype composition in the various sizes has often been estimated. Who keeps accurate records and *knows* exactly what it costs? Detailed records are desired.

ADJUSTMENT OF LINE DELIVERY CARRIAGE.— H. G. W., Bowling Green, Ohio, writes: "(1) What causes short finger on line-delivery carriage to fail to lock in its second notch? The book says there is an eccentric on cam 10, but there is none on this one. Just what the adjustment is that regulates the distance the carriage can go to the right to lock properly is more than I can find out. The short finger spoken of interferes with line when I elevate it. What can I do? (2) Is there any way to remove the verge springs without taking off magazine?" *Answer.*— You must be mistaken about the line-delivery carriage arm which rests against the cam not having an eccentric pin through the roller. There is a sprocket-shaped head for this pin and by loosening the screw which holds it, you can turn the eccentric so as to give the lever a greater throw and return the carriage far enough to lock. This applies to old machines. The new-style machines have a split bearing for this arm, the screws in which can be loosened to allow the whole arm to be moved closer to the cam. (2) The verge springs can be pulled right out of the magazine without removing anything but the shield which covers them. Take hold of the loop portion of the spring with a pair of duck-bill pliers and draw it downward.

P. R. HILTON, President
A. W. RATHBUN, Treasurer
A. H. McQUILKIN, Secy. and Mgr.
JOHN S. THOMPSON, Supt.
Indorsed by the International Typographical Union. A Complete Modern Equipment. Telephones: Harrison 4229-4230-4231-4232.

Inland Printer Technical School

Instruction in Machine Composition, Job Composition and Presswork

130 Sherman St., *Chicago, Ill.,*



LAKE ELDORA, COLORADO

On The Colorado & Northwestern R. R.

Color Plates and Printing by
The United States Colortype Co.
Denver, Colo.

Printed with Photo Chromic Colors
Manufactured by
The Ault & Wiborg Company,
Cincinnati, New York, Chicago,
St. Louis, Toronto, London.

RECENT PATENTS ON TYPESETTING MACHINERY.

Vise-Jaw Support.— D. S. Kennedy, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed March 17, 1906. Issued June 26, 1906. No. 824,659.

Linotype Mold.— J. B. Bell, Wilmington, Delaware. Filed Dec. 12, 1905. Issued July 3, 1906. No. 824,704.

Automatic Stop for Linotype.— J. B. Bell, Wilmington, Delaware. Filed December 12, 1905. Issued July 3, 1906. No. 824,705.

Two-Letter Assembling Device.— T. S. Homans, Brooklyn, New York, assignor to Mergenthaler Linotype Company, New York city. Filed March 26, 1906. Issued July 3, 1906. No. 825,054.

Type Justifying Machine.— F. A. Johnson, New Bedford, Massachusetts, assignor to the Unitype Company, Manchester, Connecticut. Filed September 23, 1899. Issued July 24, 1906. No. 826,578.

Vise Jaw.— M. W. Morehouse, New York city, assignor to Mergenthaler Linotype Company, New York city. Filed November 17, 1905. Issued July 24, 1906. No. 826,593.

GREATLY EXAGGERATED.

A paper manufacturer of Georgia writes to the *Manufacturers' Record* concerning a successful process of making paper from cotton stalks. He states that he will endeavor to organize a company with sufficient capital to build one hundred mills in the South of twenty-five tons' capacity (daily, presumably) each, to manufacture the new paper.

Let's see. Counting three hundred days per year would give an annual capacity of seven thousand five hundred tons per mill, or a total of seven hundred and fifty thousand tons yearly. That is one hundred thousand tons more than the total amount of news paper consumed in America in 1904, and nearly double the amount of book paper used the same year.— *Pure White, Champion Coated Paper Co., Hamilton, Ohio.*

IN PRONUNCIATION, TOO.

Mr. Carnegie, doubtless you
Can aid us in pronouncing, too;
Tell us now, in view of "Wooster,"
Why is Rochester not "Rooster?"— *Yonkers Statesman.*

"SPECIMENS OF LETTER-HEADS, No. 2," will furnish the idea you are seeking. The Inland Printer Company will furnish the booklet for 50 cents.

OBITUARY

CHARLES J. ZINGG.

Announcement of the death of Charles J. Zingg, managing editor of *Printers' Ink*, on Saturday, July 14, has been received with profound regret by the advertising and printing world. Mr. Zingg died from an attack of acute indigestion. The following account of his life and works is taken from an "appreciation" by Charles J. Benjamin, in *Printers' Ink:*

J. M. HITCHCOCK A. R. MARSHTON

The Hitchcock Lyceum Bureau

Talent Furnished for High-class Entertainments.

Boston, Mass.,

"Charles J. Zingg was born in Switzerland, in the town of Zurich, some forty-five years ago. He was destined by his parents for a military career, a life for which his temperament and superb physique admirably suited him. He was graduated from a military training school and served for a while as an officer of artillery. A visit to East Africa, however, in 1880, made on behalf of the Swiss Geographical Society, for which he conducted an exploration of the Juba river in Somaliland, led to his receiving a tempting offer from a large Swiss firm of importers and he returned to Africa to establish and manage for them a branch office at Zanzibar, where for a time he also served as an associate justice of the French Consular Court. Here he remained nine years until on the morning after the banquet given to Henry M. Stanley and Emin Pasha on their return from Equitoria in 1889 Mr. Zingg suffered a sunstroke. Returning to Switzerland he spent a year in recuperating and then went back to Zanzibar, but his health suffering in consequence and being advised by his physician that he must avoid a tropical climate for ten years at least, he again sailed for Switzerland. Soon afterwards he embarked for the United States, a country for which he had conceived a profound admiration, and after a brief stay in New York he visited New England, settling finally in Farmington, Maine, and eventually becoming a naturalized American citizen. Here he engaged in newspaper work, acting as Associated Press correspondent for northern Maine and as special writer for various periodicals.

"Curiously enough it was *Printers' Ink*, a copy of which he picked up one day in a store in Farmington, which first directed his attention to the advertising field, and not long after becoming a student of the Little Schoolmaster he

began to write advertisements for the merchants of his town. Later he advertised in the classified columns of *Printers' Ink* and secured business from all parts of the country. When, in 1895, *Printers' Ink* conducted an ad.-writing contest he was one of the most persevering contestants and although the prize was finally awarded to another, Mr. Zingg's work was conceded to be of a high order of merit, so much so that when five years later the George P. Rowell Advertising Agency inserted in *Printers' Ink* a 'blind' ad. for an advertisement writer and Mr. Zingg among others answered it he was invited to come to New York. In January, 1900, he began work at 10 Spruce street as 'general utility' writer, preparing advertisements for the agency, Ripans Tabules and Rowell's American Newspaper Directory. Eighteen months later, a physical breakdown caused the retirement of the then managing editor of *Printers' Ink* and Mr. Zingg was promoted to fill the vacancy, taking charge of the paper on an hour's notice.

"His work as editor of *Printers' Ink* is too well known to readers of the Little Schoolmaster to call for eulogy or



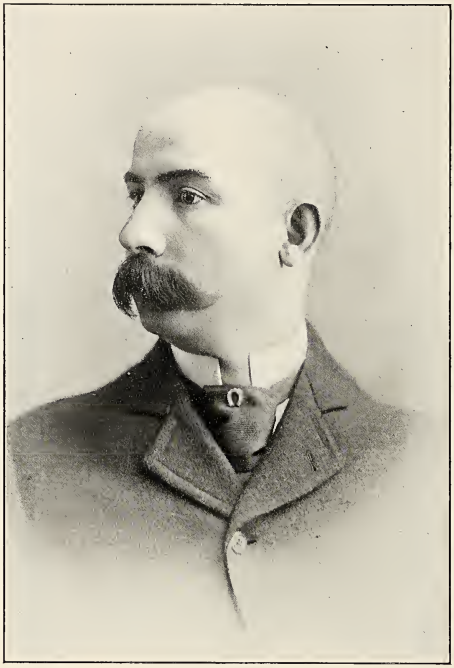
CHARLES J. ZINGG.

comment. Of the man himself it may be truly said that he was honest and sincere, a faithful employee and a firm friend.

"*Requiescat in pace.*"

ANDREW B. STEWART.

A large number of printers, both employers and employees, will regret to learn of the death of Andrew B. Stewart, of the Whitlock Printing Press Manufacturing Company. On Saturday, July 7, while bathing in the surf at Wildwood, New Jersey, although a powerful swimmer and accustomed to surf bathing, he was suddenly overcome as he was leaving the water. Physicians and the life guards worked incessantly over him, but he died without regaining consciousness. Mr. Stewart's business life was devoted entirely to printing or allied machinery. Born in New York city about fifty years ago, his early years were spent in the factory of R. Hoe & Co., where he learned the trade of machinist. For the last eleven or twelve years, with the exception of a short interval, he was an erector for the Whitlock Company. During this period his duties called him over a large area of this country,



ANDREW B. STEWART.

Canada and the West Indies. His aptitude in his chosen field, his affable disposition and an always-ready fund of trade information won for him many friends in the craft, who had come to look upon him as a man of extended experience and one whom the anticipation of meeting was a pleasure. He was unmarried and a sister and two brothers survive him.

TWOFOLD RETURNS.

W. H. Mohr, a wealthy man living in Long Island City, Long Island, is credited with the following:

"I tell you it pays well to advertise. I hung a valuable rug out my window to air a few days ago and somebody stole it. I put an advertisement in the local paper that the thief was known and he would save much trouble by returning the rug. When I opened the door to-day to take in the milk and the morning paper I found two large bundles awaiting me. One contained my own rug and the other contained another rug."

A NEW idea for a letter-head? You can find several of them in "Specimens of Letter-heads, No. 2," published by The Inland Printer Company. The price is 50 cents.



BY S. H. HORGAN.

In this department, queries regarding process engraving will be recorded and answered. The experiences and suggestions of engravers and printers are solicited. Address, The Inland Printer Company, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

REDUCING GLASSES, unmounted. 35 cents.

PENROSE PROCESS YEAR-BOOK, 1905-6. $2.85 postpaid.

THREE-COLOR PHOTOGRAPHY.— By A. von Hübl. $3.60 postpaid.

PHOTOENGRAVING.— By W. T. Wilkinson, revised and enlarged by Edward L. Wilson, New York. Cloth, $3.

PHOTOENGRAVING.— By Carl Schraubstadter, Jr. Cloth, illustrated with numerous diagrams, and provided with a copious index. $3.

DRAWING FOR REPRODUCTION.—A practical handbook of drawing for modern methods of reproduction, by Charles G. Harper. Cloth, $2.25.

LESSONS ON DECORATIVE DESIGN.— By Frank G. Jackson, S. M. in the Birmingham Municipal School of Art. Elements, principles and practice of decoration. Cloth, $2.

THE HALF-TONE PROCESS.— By Julius Verfasser. A practical manual of photoengraving in half-tone on zinc, copper and brass. Third edition, entirely rewritten; fully illustrated; cloth, 292 pages; $2, postpaid.

THEORY AND PRACTICE OF DESIGN.— By Frank G. Jackson. Advanced text-book on decorative art; sequel to "Lessons on Decorative Design"; explaining fundamental principles underlying the art of designing. $2.50.

DRAWING FOR PRINTERS.— By Ernest Knaufft, editor of *The Art Student* and director of the Chautauqua Society of Fine Arts. A practical treatise on the art of designing and illustrating in connection with typography for the beginner as well as the more advanced student. Cloth, $2.

PHOTOENGRAVING.— By H. Jenkins. Containing practical instructions for producing photoengraved plates in relief-line and half-tone, with chapter on the theory and practice of three-color work, by Frederic E. Ives and Stephen H. Horgan, the frontispieces being progressive proofs of one of the best exhibits of three-color work. The whole is richly illustrated, printed on highly enameled heavy paper, and bound in blue silk cloth, gold embossed; new edition, revised and brought down to date; 200 pages. $2.

PHOTOTRICHROMATIC PRINTING.— By C. G. Zander. To learn the first principles of three-color work there is no better book than Zander's "Phototrichromatic Printing." The photoengraver or printer who attempts color-work without understanding the laws of color phenomena will waste much time and money. To supply this elementary knowledge is the purpose of Mr. Zander's book, and it is done in a thorough manner without scientific complexity. Fifty pages, with color-plates and diagrams. Cloth, $1.

PRIOR'S AUTOMATIC PHOTOSCALE.— For the use of printers, publishers and photoengravers, in determining proportions in process engraving. The scale shows at a glance any desired proportion of reduction or enlargement, as well as the number of square inches in the proposed cut. It consists of a transparent scale, 8 by 12 inches (divided into quarter-inch squares by horizontal and perpendicular lines), to which is attached a pivoted diagonal rule for accurately determining proportions. A very useful article for all making or using process cuts. $2.

THE PRINCIPLES OF DESIGN.— New ideas on an old subject. A book for designers, teachers and students. By Ernest A. Batchelder, Instructor in the Manual Arts, Throop Polytechnic Institute, Pasadena, California. This book has been designated as "the most helpful work yet published on elementary design." It clearly defines the fundamental principles of design and presents a series of problems leading from the composition of abstract lines and areas in black, white and tones of gray, to the more complex subject of nature in design, with helpful suggestions for the use of the naturalistic motif. There are over one hundred plates. Published by The Inland Printer Company, $3.

ETCHING LITHOGRAPHIC DRAWING ON ZINC.— E. P. asks: "What is the best method of preparing a line plate for etching, on receiving it from the lithographic artist, with the image drawn on it in thin lithographic ink?" *Answer.— Process Work* gives first prize to the following answer: "Commence by dabbing a sponge, saturated with a fresh solution of gum, on the surface of a plate; wipe nearly dry with a soft, clean rag, and finish off with a little heat. Wash away the image, using turps and a dry rag; then coat the plate with a solution of asphaltum. When dry, develop plate with water, assisting gently with the sponge. When properly developed you will have, in place of the lithographic ink, a uniform coating of asphaltum, which will readily take a good body of etching ink, either by the rolling or rubbing-up method. Have your plate now inked up, dust over with dragon's-blood or resin, and then burn in. If desired, any further retouching can now be done with asphaltum solution. The plate is now ready for etching."

MAKING EMBOSSING DIES.—W. A. Alderson, Toronto, Canada, writes: "After a person takes a print or impression of a zinc etching, half-tone or electrotype, how will he go about to transfer same onto brass or steel? I want to make an embossing die of brass or steel and have the zinc etching. The registration must be absolutely perfect." *Answer.*— This question opens up one of the most difficult problems in photoengraving. To do it without the aid of photography means that the counter must be cut by a die-sinker. This is the proper way to do it unless one is in the business of brass and steel die-making. Paragraphs on the subject of embossing dies have been printed in this department of THE INLAND PRINTER for January and May, 1899, and May and December, 1903, to which the reader is referred. Making transfers on zinc has been mentioned in this department during the present year, and one can get hints enough from them to make a transfer to brass or steel, as the method is the same as that used in transferring to zinc. See paragraph in this department titled, "Etching Lithographic Drawing on Zinc."

MR. GAMBLE IN CHICAGO.—Mr. William Gamble is giving some of his impressions of America. Here are a few of the things he says of Chicago: "Chicago gives one the impression that it puts on no airs and makes no pretensions to being other than the severely business-like city it is — as if its inhabitants were to say, 'We're here for business, not to look pretty.' Its main streets are immensely long and mathematically straight. The map of Chicago looks like an enlargement of a Levy screen. Naturally photoengraving establishments are laid out on the same scale of magnitude. The Barnes-Crosby Company about equally divides honors with Carl Hentschel, Ltd., London, for being the largest firm in the world. I found myself unable to decide which was the biggest, but if one judges by the amount of fair and square floorspace concentrated in the heart of the city, the palm must be awarded to the Barnes-Crosby Company, and in the number of employees they about equal those of 'C. H.' The firm is conducted on very progressive lines and is regarded by the other photoengravers with much the same jealousy as the Carl Hentschel Company in London. They are accused of price-cutting to make a big turnover; on that I can express no opinion, but it may be suggested that a firm making a big turnover and operating economically, owing to large facilities, can afford to work cheaply and still make as good a profit as the firms that complain."

FRED E. IVES ON THREE-COLOR DIFFICULTIES.—Mr. Ives delivered a short, sharp talk recently before the Society of Chemical Industry, New York, on some of the little recognized difficulties connected with three-color reproduction. He reviewed briefly the early obstacles in the way. The unsatisfactory paper and inks and stubborn pressmen. He told of his troubles with printers who insisted that the red ink could not be too red or the blue ink too blue, the result being the purple shade that the earlier three-color half-tones possessed. Then these printers must print on soft paper as lithographers did. Color "would not take" on hard-surfaced paper. Ives contended for a glossy-surfaced paper and a hard tympan, but a pressman told him that printers were not going to give up all they had

learned for an upstart like himself. But, Ives said, his ideas have been adopted, even to the use of peacock-blue ink, without giving him any credit. When it came to the difficulties in the plate-making department he said he did not dare tell the whole truth. He used this hypothetical case instead: "A Corot landscape is received for reproduction in three-color half-tone. I make a set of three-color record negatives of it, which are rejected by the engravers because I am not a member of the Photoengravers' Union and can not make negatives. My assistant, who is a union man, makes a set which they say are all right. My negatives, by accident, are substituted and go through the printer's hands. The etchings on copper are ill treated by the reëtcher and when I remonstrate with him he retorts that the three-color result he has obtained by his manipulation is a blankety sight nearer nature than the blankety-blank Corot."

Annual Concert *by the* Choir *of the* Hammondale Avenue Methodist Episcopal Church, Monday, January 27, 1906, *in the* Church Auditorium, *at* eight p.m.

ADMISSION, TWENTY-FIVE CENTS

THE PATENT OFFICE GAZETTE.— The Commissioner of Patents, Frederick I. Allen, is entitled to a paragraph here. He has changed the method of producing the printing of the *Patent Office Gazette* from a photolithographic process for type and cuts to machine composition for the text and zinc etching for the cuts. Hercules, on any one of the seven big jobs he tackled, did not have the obstacles in his way that one meets in an endeavor to change a government method of procedure. The Patent Office handles all the newest inventions, and knows of them, for years sometimes, before they are made public, and still the record of these newest inventions has been produced by a most antiquated process. The writer feels a special interest in the *Patent Office Gazette*, as he was responsible for its appearance for the six years it was printed by the Graphic Company, New York. The *Gazette* was originally printed from gelatin in Boston by the Osgood collotype process. The method then used was to set the text in large type, proofs of this type were pasted on a card with portions of proofs of the patent drawings so as to get an enlarged page of the *Gazette*. This method was used for preparing the copy for over thirty years until recently. This enlarged copy was reduced and reproduced by collotypy and later by photolithography, with the exception of a short period during Cleveland's last term, when it was attempted to reproduce these pages by zinc etching. Now, at last, Mr. Allen has superseded the old-fogy methods by machine typesetting and photoengraving, and he deserves a monument to his memory.

MR. GAMBLE VISITS A CHICAGO PHOTOENGRAVING COMPANY.—Mr. Gamble was very cordially received by the Barnes-Crosby Company and shown all over the establishment. Here are a few of his impressions: "The business offices are very fine, and certainly give one a very good first impression. Like so many American business offices, they are all open, the callers being only separated from the desk-room by a railing. To an Englishman this would seem to have many disadvantages, but Americans certainly find it the other way, and it certainly facilitates business. The studios and workrooms of the company are roomy, clean and well laid out. Making no notes during my visit, and writing now a year after, I do not call to mind any striking novelty. If there had been I should remember it. Therefore I would say that my general impression was that everything was severely practical and good, without being notable. The very large room devoted to the photography of commercial objects shows that the firm is doing a very large business in catalogue illustrations and commercial designing. They have a large staff of designers. This room is occasionally converted into the meeting-room of the Barnes-Crosby Institute, and lectures, concerts and dances are given. This shows the happy relations existing between the firm and its employees. The finishing department is full of machinery which is duplicated, and the case of routers quadrupled, to cope with the work and avoid any chance of a breakdown. It is interesting to note that the proprietor or principal shareholder in the company is, or was, a wealthy Chicago lady, Miss Crosby — another instance I was constantly meeting with in the States of the way in which the ladies dominate big business. I ought to mention that the Barnes-Crosby Company operate their shop day and night, having a separate night staff. This is quite characteristic of Chicago, many business firms being run the whole twenty-four hours."

Martin & Company

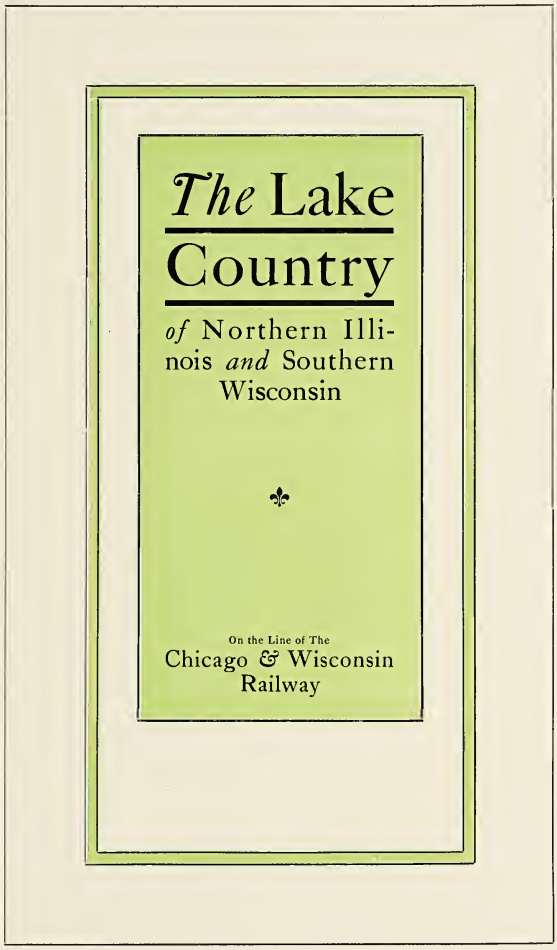
CHICAGO :: NEW YORK :: PARIS

Automobiles and Their Accessories

A Complete Assortment of Cars Carried at All Establishments

WHAT HENRY OSCAR KLEIN THINKS OF US.— I had the pleasure of meeting Mr. Klein the day of his arrival in America and bid him "bon voyage" on his return. The ambition of his life had been gratified — to visit this country — though it had cost him one-tenth of his weight. Among the things he said of us were these: We equaled any country in the quality of the colorwork we produced

and excelled them in quantity. Chicago led, he thought, in the quantity of uniformly good work, though they took a roundabout way to do it — the indirect method. There were in Chicago splendid "fine etchers" or "stagers," men with well-trained color judgment, which they got while lithographers. Fine colorwork was done in Philadelphia, as also in New York. The influence of the Austrian, German and English technical schools was seen wherever colorwork was done here, as the best workmen were not native Americans. Technical schools were, he thought, our greatest need. Ives he spoke of as the Edison of half-tone and colorwork, his Kromskop being a triumph. The late Mr. William Kurtz did much pioneer work in color platemaking. Mr. Klein said that he had the same trouble here he encountered in London to get ether good enough for collodion emulsion making. After experimenting with ether from eleven of the most highly recommended sources in this country, he found the product of the Charles Cooper Company, of Newark, to be the best for his use. The color inks made here are entirely satisfactory. The demand for colorwork he found increasing and processworkers everywhere were anxious to get instruction from him in the handling of collodion emulsion. His trip had been completely satisfactory and his only regret was that he was unable to make a longer visit with us.



PROCESSWORK SHOULD BE PROTECTED IN THE NEW COPYRIGHT BILL.— The editor of this department was requested to let the National Association of photoengravers, in convention at Detroit, know something about the new copyright bill and its relation to the photoengraver. This is what he wrote, in part: "President Roosevelt in his message to Congress last December expressed himself in this way: 'Our copyright laws urgently need revision. They are imperfect in definition, confused and inconsistent in expression; they omit provision for many articles which, under modern reproductive processes, are entitled to protection.' The President was right; our modern reproductive processes are entitled to protection. Now this is what happened: Suggestions were invited from your body by the Librarian of Congress as to what protection you needed, and you gentlemen know better than I what you asked for and what you obtained. The new copyright bill has been drawn as the result of suggestions from the various bodies interested, and it is noticeable that the printers applied for protection and obtained it, as did the lithographers and the photographers, but there is nothing in the bill protecting the processworkers. Processwork can continue to be made in any country and receive the protection of American copyright. If you gentlemen but had the statistics of the tons upon tons of postal-cards, for example, coming to this country annually that are printed abroad and stamped with American copyright, or if you but knew of the tons of engraved plates that are imported to illustrate books and periodicals that have the type set in this country, you would at least agree with the President that 'many articles under modern reproductive processes are entitled to protection.' The new copyright bill came near passing at the last session of Congress and is expected to be railroaded through the short session in December. I have personally begun an attack upon the bill in its present form as it affects the newspapers, and expect to have it amended before its passage. If your association should decide to join with the newspapers in the demand for justice, there is no reason why you should not have your great and growing industry protected as well as the lithographers or the printers."

"SPECIMENS OF LETTER-HEADS, No. 2," is replete with ideas for the job-printer. It can be had of The Inland Printer Company for 50 cents.

NEWSPAPER WORK

BY O. F. BYXBEE.

Editors and publishers of newspapers desiring criticism or notice of new features in their papers, rate cards, procuring of subscriptions and advertisements, carrier systems, etc., are requested to send all letters, papers, etc., bearing on these subjects, to O. F. Byxbee, 1881 Magnolia avenue, Chicago.

Workmen in every branch of the printing and allied trades are requested to file their names, addresses and qualifications on THE INLAND PRINTER'S list of available employees. Registration fee, $1. Name remains on list and is sent to all inquirers for three months; privilege of renewal without further charge. Employers are invited to call upon us for competent help for any department. List furnished free. Specification blanks on request. Enclose stamp when inquiring for list of available employees. Address, The Inland Printer Company, Chicago.

The following list of books is given for the convenience of readers. Orders may be sent to The Inland Printer Company.

CHALLEN'S LABOR-SAVING RECORDS.—Advertising, subscription, job-printers'. 50 pages, flexible binding, $1; 100 pages, half roan, cloth sides, $2, and $1 extra for each additional 100 pages.

THE STONEMAN.— By C. W. Lee. Latest and most complete handbook on imposition; with full list of diagrams and schemes for hand and machine folds. Convenient pocket size. 155 pages, $1 postpaid.

STARTING A PRINTING-OFFICE.— By R. C. Mallette and W. H. Jackson. A handbook for those about to establish themselves in the printing business and for those already established. Cloth, 90 pages, $1.50, postpaid.

GAINING A CIRCULATION.—A book of 60 pages; not a treatise, but a compilation of more than five hundred practical ideas and suggestions from the experiences of publishers everywhere, briefly stated and classified for practical use; a valuable aid. Price, 50 cents, postpaid.

ESTABLISHING A NEWSPAPER.— By O. F. Byxbee. Not only a handbook for the prospective publisher, but contains suggestions for the financial advancement of existing daily and weekly journals. Covers every phase of the starting and developing of a newspaper property. Cloth, 114 pages, 50 cents.

PERFECTION ADVERTISING RECORD.—A new and compact book for keeping a record of advertising contracts and checking insertions, suitable for weekly and monthly publications. Each page will carry the account of an advertiser two years. 200 pages, 7 by 11 inches, printed on heavy ledger paper, substantially bound, $3.50, prepaid.

PRACTICAL JOURNALISM.— By Edwin L. Shuman, author of "Steps Into Journalism." A book for young men and women who intend to be reporters and editors. It tells how a great paper is organized, how positions are secured, how reporters and editors do their work, and how to win promotion. There are chapters on running country papers, avoiding libel, women in journalism, and on the latest methods of big dailies. Covers the whole field of newspaper work, and tells just what the beginner wants to know. Cloth, 12mo, $1.37, postpaid.

THE Jeffersonville (Ind.) *Reflector* commemorated the Fourth of July by printing its edition in red and blue ink. The body of the paper was in blue, while the title and the second and fourth parts of its first-page display heads were in red.

THE "Sixteenth Annual Number" of the *Commercial Review*, Portland, Oregon, is a particularly nice piece of work. The special cover is printed in black and medium yellow, with a light green tint for a background, making a very harmonious combination.

ANOTHER big special edition comes from the press of Ware Brothers, Philadelphia — that of the *Merchants' Guide*. It is a fine number, of nearly a hundred pages, printed on supercalendered paper, and containing half-tones on nearly every page. The work is marred by not using enameled stock — the character of the edition would have warranted this extra expense.

UNIVERSITY courses in journalism frequently fail to conform to the real article as found in the hustling office of the big city daily, as theoretical instruction, no matter how practical may be its basis, fails to grasp that indescribable something about the air of a newspaper office and the requirements of the city desk which can only be understood by coming in actual contact with the practical side of newspaper life. The University of Wisconsin has a new course in journalism, which is supplemented by practical training, in which the student is required to report actual occurrences, from football games to political speeches, and from weddings to fires. This should prove the most valuable part of the instruction, as it approaches as near as is possible to actual journalistic training.

SOMETHING unique in a special industrial edition was recently issued by the Reading (Pa.) *Telegram* inasmuch as there were no paid write-ups. Reading's industries and opportunities were reviewed in newspaper story form. Ten additional pages were issued, setting forth the many advantages of the city and describing its industries in an interesting and attractive manner. The upper half of the first page contains a panoramic view of Reading and a "Business Proclamation." The lower half and all of the second page is devoted to facsimile signatures of the professional and business men of the city, closely written and endorsing the proclamation. The object of the edition is to attract people to Reading as a permanent residence, as there is great need of labor in all lines, and to still further aid the object arrangements were made to issue the supplement in connection with leading papers in nineteen cities in various parts of the country. Incidentally the edition commemorated the third anniversary of the present management of the *Telegram*, which has pushed the paper rapidly to the front.

NEWSPAPER CRITICISMS.— The following papers were received, marked "For Criticism," and brief suggestions are made for their improvement:

Braddock (Pa.) *Journal*.— You are not getting good results on your half-tones; the fault appears to be with the quality of ink used.

Ardmore (Okla.) *Democrat*.— There are three kinds of dashes in your "Personal" department — they should be all alike or eliminated entirely; the latter would be better. You have certainly beaten them all for a first page with feature heads and panels and I reproduce it to show the possibilities along this line, although you have carried the idea about to the limit.



ARDMORE MORNING DEMOCRAT.

NONE ARE INDICTED

FIRST DAY IS A SUCCESS

A PAYMASTER IS INDISPOSED

PAY AS THEY PROCEED

WHERE'S THE FINISH

FEAR TROUBLE

CHARGE DISMISSED

HOSE CONTEST

Republicans Meet in Their Initiatory Stomp Dance

Magic Wand of Progress Hangs Above This City

TO PROTECT THE INDIAN

LAND BUYERS INTERESTED

BRYAN TO VISIT HERE

CELEBRATION AT MILO A DEMOCRATIC FEAST

IS POSTING THE FARMERS

OFFERED A $50 TIP.

Mt. Vernon (Ohio) *Democratic Banner.*— Presswork is poor, both in color and impression. Plate matter columns are uneven at the top.

Dassel (Minn.) *Anchor.*— Aside from bad places in the impression, which indicate that the blanket on your press is damaged, your paper is very creditable.

Caldwell (Ohio) *Republican Journal.*— More care should be taken with the make-up of plate columns, getting them even at the top, and color is uneven. Your paper is unusually well filled with local news.

Eaton (Colo.) *Herald.*— The *Herald* is a good example of the small-page weekly. It has four columns to the page and its advertising columns indicate prosperity. A page of this size makes print paper look out of place; it would be a great improvement to use supercalendered stock.

Harriman (Tenn.) *Record.*— It is too bad to mar an otherwise good paper by "sandwiching" paid local items all through your first page, and medical readers between articles on the fifth. The latter contracts can be secured just as easily if you agree to run them at the bottom of columns.

ANOTHER SUBSCRIPTION RECEIPT.— The following letter describes another form of subscription receipt, which is very simple and practical:

Mr. O. F. Byzbee:

DEAR SIR,—After your notice of the Troy (Pa.) *Gazette-Register's* subscription receipt, we concluded to submit ours — a different style from

NEW SUBSCRIPTIONS.

Date 190

Name .....

Address .....

.....

Ordered by .....

Remarks .....

USED WHEN ADVANCED PAYMENT IS NOT MADE.

Elmer, N. J. 190

Received of .....

..... *Dollars* 100

For Subscription to the ELMER TIMES

From *To*

Address .....

.....

Signed, Elmer Times Co.
Per

Remarks .....

.....

.....

CHANGE OF ADDRESS.

Date 190

Name .....

Old Address .....

.....

New Address .....

.....

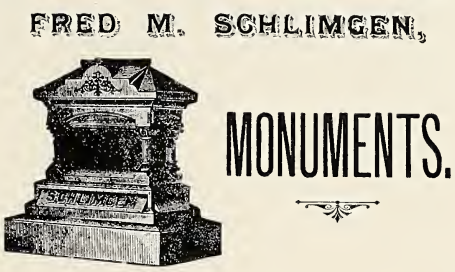
any we have seen. We put these receipts in pads, yellow and white sheet alternately. The white receipt we give to subscribers who pay at the office, and the yellow carbon copy is placed on a hook file. Subscribers who pay by mail receive receipt on enclosed post-card, using that over the yellow receipt. In this way we keep a duplicate of every subscription receipt. Instead of entering each payment on our cash book we put each day's total down. The duplicate receipts are all preserved in a filing case, home-made and indexed. Our mailing list is also corrected from these receipts. We have used stub receipt books and other plans, but this system, originated by our Mr. S. P. Foster, a few years since, is the most satisfactory we have used or seen.

Respectfully,

ELMER TIMES COMPANY.

One of the blanks is reproduced. The yellow and white blanks and the post-card, described in the above letter, are all printed alike. Besides these blanks the *Times* enclosed two others which are also shown, being very necessary and simple forms for entering orders for change of address and new subscriptions where no payment is made.

GOOD AD. COMPOSITION.— Many compositors find the placing of a cut one of their most difficult problems, and as a result many ads. are thrown out of balance and lose their value through the lack of artistic merit. I am in receipt of a number of specimens from E. R. Adamson, of the Belleville (Wis.) *Recorder*, which show that he has



No. 1.

failed to grasp this important point, although otherwise his work is creditable. His two ads., Nos. 1 and 3, are shown together with similar ads., Nos. 2 and 4, set by Edward W. Jones, of Philadelphia, which show how this difficulty is best overcome by the use of panels. In No. 1 there is a cut which does not fit into the ad. at all, while in No. 2 an awkward cut is made to balance perfectly. If the monument cut had been placed at the top of the ad., similar to No. 2, the balance of the matter could have been set below and it would have appeared to good advantage. No. 3 illustrates the same difficulty, while No. 4 suggests a remedy, although as far as display goes there is a good deal of sameness and too many caps. in the latter. No. 3 could have been set in three panels, putting the head lines in a separate panel across the top, the cut in a second at the right, and the balance in a third at the left. No. 5 is a sample of ad. writing and display from George Wilfred Wright, of Elizabeth, New Jersey. While the arrangement is simple, it is effective. If the prices had been brought out a little stronger it would have been better.

SECOND-CLASS postage will undoubtedly undergo some radical changes at the next session of Congress, or may go out of existence altogether. The commission appointed to consider the matter has organized and will hold hearings at which representatives of publishers will be given an opportunity to present their views. The first of these will be held at the Holland House, New York, on October 1. While the attitude of the postoffice officials has at no time been antagonistic to the interests of the legitimate publisher — in fact, their rulings have been primarily directed to safeguard his interests — yet there has been considerable

complaint that the lines were too stringently drawn. The existing laws do not cover the conditions of to-day and many of the most important questions are decided almost exclusively on "rulings" of officials. These conditions have led to many misunderstandings and have been the cause of no end of annoyance to the postmaster-general and their assistants. In view of this annoyance and the complications of the present system, even if properly safeguarded by new and specific laws, a question has been created in the minds of the officials, if not a sentiment, in favor of abolishing the second-class rate entirely and placing all printed matter in a class similar to the present third class, at a rate somewhat higher than the ruling second class, but probably not exceeding eight cents a pound. Such a law will avoid all the trouble encountered by the officials, and unless the publishers can show the commission by strong arguments that it is advisable to maintain the present restrictions, it will unquestionably be inclined to favor a less complicated system. Such a course has the added inducement in its favor that it does away with the carrying of mail at a loss and will place the post-office department on a paying basis. The reasons which



You Don't Have to Stop

to adjust any fine mechanism before closing the Lewis Vulcanizer. Simply put on the Cap, engage the Bar and Bolt, give the nut a few turns and it is steam tight.

$10.00, $18.00, $20.00
according to size

Equipped with Lewis Graduated Gas Regulator and Time Regulator it does its work without causing the operator the slightest anxiety. You light the gas, the Gas Regulator cuts down the flame and holds it where desired, while the Time Regulator shuts off the gas at completion of vulcanization.

Gas and Time Regulator, $8.50 additional.
Catalogue "C" tells about Vulcanizers.

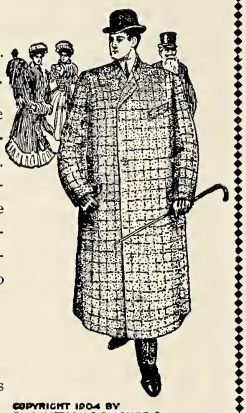
Buffalo Dental Mfg. Co.
BUFFALO, N. Y., U. S. A.

No. 2.

have been advanced in the past for granting special mail privileges to publishers must be strongly emphasized to the members of the commission in order to have weight, as these reasons are already familiar to them. It will do no good to recite the many trying incidents of annoyance suffered because of rulings which at times, to the individual publisher at least, have seemed unnecessarily harsh, as this will only tend toward abolishing the rate. The main effort will be to retain the second-class rate; the secondary work to formulate laws that will overcome past and present difficulties. Newspaper publishers are not taking the interest they should in the matter. It will not be possible for the individual publisher to appear before the commission, as the hearings are open to the representatives of publishers only. It is therefore all the more important that every publisher should connect himself with his State press association, or with some other organiza-

The Seasons Come and So. . .

. . .Winter Is Coming



The Marks & Manson Co. has prepared for winter.

A large stock of the GREAT BELT OVERCOAT has been secured. They are great for comfort. They exclude the winter. They are genteel and strictly up-to-date. $10.00 and $12.00 will buy them.

Bargains in Overcoats
. . at . .

COPYRIGHT 1904 BY RUH, NATHAN & FISCHER CO.

The Marks & Manson Co.'s

No. 3.

tion of like purpose, and lend his presence at all meetings and all other possible aid to the movement toward placing our side of the case rightly before the commission and before Congress. So far, no one has attempted to forecast the effect of an increase in rate on second-class matter to, say, four cents a pound and the removal of all restrictions as to paid subscribers. All will admit, however, that subscription rates must be advanced to cover a four hundred per cent increase in rates, and that the subscriber must "pay the freight." What will be the effect upon present competition between the legitimate publisher who expects to get a profit on his subscription list and the house organ or the mail-order journal whose "subscription list" is a mere subterfuge? Even at eight cents a pound house organs are circulated to a considerable extent; at four cents there would be more and better journals of this character. The mail-order journal would undoubtedly abandon all pretense to a subscription list (which would materially reduce its running expenses), increase its advertising rates slightly, and the trick is done. It will be extremely hard for the newspaper publisher to turn his paper into a mail-order journal; it will be equally hard for him to maintain circulation at a largely increased rate, and with a reduced list of subscribers he will find it difficult to maintain his volume of advertising. These questions will be discussed

and acted upon at the meetings of organized publishers, and considering what is at stake there should be full attendance at every gathering.

AD.-SETTING CONTEST No. 20.— On August 1, just two weeks before the close of Contest No. 20, there was every indication of a good-sized list of ads. The change made,



No. 4.

allowing the compositor to form his own copy, is proving very interesting and the result will be of great help to the contestants, at least. It will be impossible to publish the result before November, but the winners of the contest will be notified about September 15.

A "FAT TAKE."

I received the May, June and July issues of THE INLAND PRINTER and only regret that I did not subscribe years ago. It is an invaluable book and better than a "fat take," with several thousand pick-ups, to any printer who is disposed to quit shoeing horses and get out of the blacksmith business. The great trouble with the majority of our printers (so-called) these days is that they are disposed to watch the clock much closer than they study their business, and, like the country hotelkeeper, who knows how to charge $2 per day but who don't know what to give for it, the average printer is disposed to charge the "regular" price but give very irregular service. I am particularly interested in your articles on making estimates, and expect to get enough good out of that department alone to "get back" my $3 — and then some more. I have a very small and incomplete shop and a very large and complete expense and I take the greatest pleasure in making the office turn out work above any expectations from such an office. To do this I have to resort to expedients, and, now that I have THE INLAND PRINTER to "help me think," I can almost if not fully reach my ambition.— *P. W. Roane, Sweetwater, Texas.*



No. 5.

IT is what we THINK and what we DO that make us what we ARE.— *Elbert Hubbard.*

SPECIMENS

Under this head will be briefly reviewed brochures, booklets and specimens of printing sent for criticism. Literature submitted for this purpose should be marked "For Criticism," and directed to The Inland Printer Company, Chicago.

Postage on packages containing specimens must be fully prepaid. Letters positively must not be included in packages of specimens, unless letter postage is placed on the entire package.

COMMERCIAL printing from Charles Bardin, with J. W. Roberts & Son, Tampa, Florida, is original and the designs are pleasing.

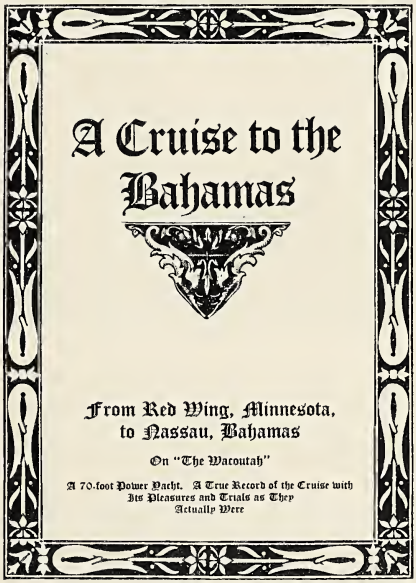
W. WILLIAMSON, Chicago.— Your work is very neat and attractive and shows an appreciation of modest typography and discrimination in the use of color.

MCQUIDDY PRINTING COMPANY, Nashville, Tennessee.— The letter-head design is novel and presents an attractive appearance. The envelope, however, is rather overdone in ornamentation.

SPECIMENS from R. Lee Sharpe, Carrollton, Georgia, are original in design and well executed. Among the late products of his plant a mailing card advertising his own business is the most striking.

CHARLES H. SMITH, Rensselaer, Indiana.— A little more attention to the joining and make-ready of rules would result in a decided improvement in the appearance of your work. The advertisements are very creditable.

THE productions of D. Gustafson, Red Wing, Minnesota, invariably contain much that is beautiful and interesting to the lovers of fine printing. The latest is an artistic booklet of some forty pages, entitled "A Cruise to the Bahamas," beautifully printed on deckle-edge stock, with the half-tone illustrations on enameled stock and inserted. The title-page, a reproduction of which is shown, is in two colors, the type matter being in black and the border and ornament in a blue-green tint. With the exception of the possible criticism that the lower group of lines is rather heavy for the page as a whole, this forms a rich and handsome title. The booklet was printed in the office of the Red Wing Printing Company.



C. H. FLEWELLING, St. John, N. B.— Your specimens show a tendency toward the use of larger sizes of type than is necessary to good display,

especially in some of the date-lines. More care should have been given the make-ready of the half-tone on the hotel letter-head.

SPECIMENS of commercial printing from W. J. Hedden, New Albany, Indiana, are very attractive. The discriminating use of tint-blocks and colors has much to do with placing his printing in the "out-of-the-ordinary" class.

J. H. MACADAM, Anderson, Indiana.—Your specimens show much originality in design and discrimination in the use of color. The cover pages are very good, as is also the letter-head for the Bulletin Printing and Manufacturing Company.

A PACKAGE of commercial specimens from The Jefferson Printery, St. Louis, Missouri, contains many artistic typographical designs. The work consists of everything in the commercial line. The mechanical details are carefully considered and the specimens as a whole are of a high order. The

using one series of type, a parallel rule around the page, and possibly a small ornament beneath the upper group of reading matter.

SPECIMENS of commercial printing from *The Hillsboro Journal*, Hillsboro, Illinois, show a marked improvement over the work formerly turned out by this firm. The typography, presswork and use of color are all creditable and the work presents an attractive appearance.

H. CLAY EARLE, Dallas, Texas.—The specimens are good examples of typographical modesty, a feature too often overlooked in the modern search for something "original." There is a directness and stability in this style of work which is lacking in much of the freak printing now being turned out.

AN attractive millinery booklet is issued by D. B. Fisk & Co. Chicago. The text and illustrations are in black, with marginal cuts and heading in a green tint, on white coated paper. The cover is printed in delicate tints



reproduction of business cards shown herewith illustrates the class of work which this firm produces.

HAMPSHIRE ART PRESS, Keene, New Hampshire.—The booklet is an exceptionally artistic specimen—well written, well designed, well printed, and, above all, an excellent color combination. It will undoubtedly be a profitable investment.

SPECIMENS received from the *London Advertiser* job department, London, Ontario, are carefully composed and well printed, the only exception being the firm letter-head, which is rather confusing owing to an excess of ornamentation and letter-spacing.

ROBERT C. JORDAN, Cincinnati, Ohio.—The arrangement of the booklet cover is very good. A slight reduction in the length of the line containing the firm name would result in an improvement, as would also a trifle more white space above the first line.

"CHICAGO AS A SUMMER RESORT" is the title of an attractive folder issued by the Rock Island Frisco Lines. It is illustrated with numerous views of Chicago's attractions and presents the city's inducements to the tourist in an entertaining manner.

P. LIEBERMAN, New York City, N. Y.—The cover-pages submitted are entirely too decorative for work of this class. Plain, modest typographical effects are preferable in this case, and even though you wish to ornament the page care should be taken in the selection of the borders to be used. The use of one—or, at the most, two—series of type would have improved the appearance very much. Try a more simple arrangement, on cream-colored deckle-edge stock, the whole presenting a neat appearance.

G. A. HARLOW, Truro, Nova Scotia.—A noticeable feature in many of your commercial specimens is the use of large sizes of type for date-lines. As a general thing, twelve-point lower-case or ten-point caps of the series used is sufficiently large for these lines. The type used on the bill-head for J. A. Fulton is entirely too large.

A PROGRAM of an excursion of the employees of the Stovel Company, Winnipeg, Canada, on July 14, is an interesting piece of printing. It is in two colors and contains many excellent illustrations of the excursion of last year. The decorations for the pages were drawn expressly for this program and are very appropriate and suggestive.

C. WENDLANDT, Cincinnati, Ohio.—The specimen is entirely too decorative. If you feel the necessity for this amount of ornamentation, either subordinate it by printing it in a tint or use a heavier type-face for the reading matter. As it now stands, the purpose for which it was printed is entirely overshadowed by the rules and ornaments.

A GROUP of four department catalogues from the Columbian Hardware Company, Cleveland, Ohio, shows much that is original and unique. A "Hand Book of Joist Hangers for Architects" is printed throughout from zinc plates made from drawings in architects' lettering, the illustrations being imitations—real clever ones—of blue-prints. The cover shows a novel effect, the printing being on a small panel of white paper, which is tipped on the colored stock and then the whole cover is pebbled, close

examination being necessary to disclose the fact that it is not a panel printed in white ink. The other booklets are all well printed in two colors, with embossed covers.

P. B. Cowdry, Oakland, California.— Your contention in regard to the spacing on the letter-head is quite correct. The use of more white space between the lines in question could in no way be an improvement. On the contrary it would cause confusion as to what the address stood for.

A catalogue of the Haynes automobiles, printed by The Caxton Company, Cleveland, Ohio, is an exceptionally handsome specimen. The body of the catalogue is printed in black and brown, the text being in brown and the illustrations in black. The typography, presswork and engraving, all by the same firm, are excellent examples of high-grade catalogue making.

Fred Doig, St. John, N. B.—Some of your commercial work shows a tendency toward the use of too many type-faces in the same specimen. The bill-head for Harold Climo is an example of this, no less than five different series being used, embracing script, italic text and roman. The letter-head for W. G. McGinley is artistic, both in arrangement and the use of color.

The "Fort Wayne Year Book," from the press of the Archer Printing Company, Fort Wayne, Indiana, is an excellent specimen of printing It is a book of some 130 pages, 8 by 11 inches in size, and printed in black and orange, the border around each page being in the latter color. A large number of half-tone illustrations are distributed throughout the book, and they are, without exception, excellently printed. The typography is quite in keeping with the presswork, and the whole forms an interesting example of high-class printing.

A reproduction is shown herewith of an artistic catalogue page from a catalogue of the Pittsburg Hardware and Home Supply Company, Pittsburg, Pennsylvania. The original is 10 by 11 inches in size and is printed



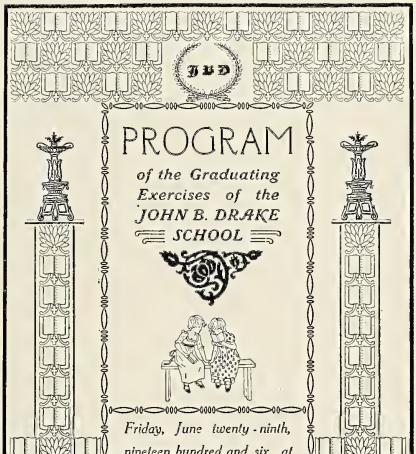
in photo-brown and red on light-brown stock. It is an excellent piece of work and reflects great credit on its producers — The Pitts Photoengraving Company, Pittsburg, Pennsylvania.

The Oriole Printery, Clifton Forge, Virginia.— Your work shows originality in typography, but the colors used are striking rather than beautiful. While these strong color effects are correct and proper in window cards and posters for billboards — where they are read from a distance — commercial stationery, which is read at short range, demands the more delicate shades and tints in order that the effect on the eye may be pleasing.

The possibilities of a printing-press are well shown in a specimen sent out by the C. B. Cottrell & Sons Company. The sheet, 42 by 60 inches, solid half-tone illustrations, was printed on a 45 by 62 Cottrell press at a speed of 1,620 impressions per hour. This speed was maintained for ten days' continual running, which is a remarkable output, considering the quality of the printing. The specimen clearly demonstrates the wonderful rigidity of impression and the excellent distribution claimed by the Cottrell Company.

The productions of The Matthews-Northrup Works, Buffalo, New York, invariably contain the touch of the artistic which is needed in modern printing to place it in the highest class. Not only is this art element present, but in addition the mechanical details are neither overlooked nor slighted. Among the late specimens from this firm the most prominent is a booklet for the national convention of wholesale grocers, the cover of which is embossed in gold and blank on gray-green stock The text of the booklet is printed in green, with the illustrations in black. An illustrated description of the Taj Mahal at Agra, India, is an excellent bit of presswork. Several other booklets and folders complete the group of specimens, all being of the standard usually reached by the work of this firm.

As an illustration of the use of an excess of ornamentation, the accompanying program title-page from The Cloister Press, Chicago, is shown. The original is in black and gold, tbe outer rule, monogram, ornaments on



pedestals, ornament under the word "school" and imprint being bronzed. The reading matter, in which, including the monogram, four different type-faces are used, is only found after one's eyes become accustomed to the tangled mass of decoration. This idea of the use of ornamentation is similar to the framing of a small picture in a frame so large and expensive that one does not think of the picture at all, but sees only the frame. Even though the design were beautiful the practical features of printing should not be subordinated to such an extent as is done in this case.



The accompanying reproduction shows one of the most artistic announcements that has reached this department in some time. The original is in four colors on gray cover-stock and was printed by Feyl Brothers, Berlin, Germany.

PRINTER'S ADVERTISING

THE current number of *Letters*, the magazine of correspondence salesmanship, published by the H. M. Van Hoesen Company, Chicago, contains much of interest for the advertiser — and this includes the successful printer. The articles on business-bringing letters and follow-up letters are entertainingly written and cover the ground thoroughly. Judging from the dulness and stupidity of the average form letter, this magazine is correct in its anticipation of filling a "long-felt want."

A REPRODUCTION is shown herewith of the third number in a series of calendars being issued by the George H. Ellis Company, Boston, Massachusetts. The original is in green, blue, red and gold, with the portrait printed in two



shades of brown on white stock and tipped on. The designing and printing are of the highest order and the result is an exceptionally beautiful piece of work.

Office Topics, the house organ of The Baker Printing Company, Newark, New Jersey, is an attractive publication, well written, well printed, and should prove successful in business-bringing.

THREE booklets — "Which Printer?" "About Us," and "The Illustrated Catalogue," recently issued by The Boatwright Press, Danville, Virginia, are good specimens of advertising for printers. They are well written, well designed, and the typography, presswork and colors are good. They should prove very effective.

THE accompanying reproduction is self-explanatory. It is the third page of a four-page announcement, issued by the Robert L. Stillson Company, New York. The original is printed in three colors — black, orange and yellow-green — and is an attractive bit of work.

UPLIFTING THE FISH

TRUE to its traditions, the Stillson Shop reserves the first Saturday in August for the noble purpose of uplifting the fish. If interested, take notice that August fourth is dedicated to this worthy cause. The *Dixie* is the boat, the ocean the place, and Stillson, as usual, supplies the bait. It's fine bait, and like our advertising bait is simply irresistible. The fish we uplift have character —due to the *Stillson Style.* ¶ Just a touch of this style to your printing, then go fishing—it's easy.

THE following excellent argument is found in the July number of *Profitable Printing*, the house organ of The Statesman Printing and Publishing Company, Marshall, Michigan:

> The man who never sees you has nothing to judge you by but the things which represent you — your stationery, booklets, catalogues and other printed matter.
>
> Have you ever thought about it in this way?
>
> Suppose you make up a collection of your printed matter and try to put yourself in the position of the man who never sees you.
>
> What would be the result?
>
> We print your supplies so that the impression on "the man at the other end" is even stronger than a personal visit. Try us.

"INKLINGS" is the suggestive title of a unique booklet issued by Philip Ruxton. It is gotten up in the form of an illustrated description of the different processes in the manufacture of Ruxton's inks, and in order to show these inks to the best advantage each page is printed in a dif-

ferent combination of colors. The note of explanation regarding this manner of printing the booklet is interesting. A portion of it follows:

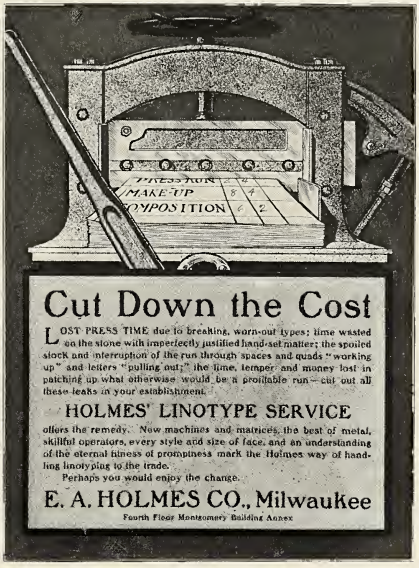
Each page, you see, has a different make-up and is printed in a different color combination. None of the make-ups and none of the combinations are bad; so if you or one of your customers like any of them, it is safe for you to take it — if you buy the ink from Ruxton.

The printers hint to me that they fear the book as a whole lacks "repose." But I don't care whether they like it or not. They have charged me for the injury to their feelings and to their reputation and for everything else they can think of. They are very complete in charging.

REPRODUCTIONS are shown herewith of two of a series of mailing cards used by the E. A. Holmes Company, Milwaukee, Wisconsin. The originals are 6 by 7½ inches in size and are printed in colors, the one containing the cut



same thing is true of printing, and no matter how convincing your argument about exceptional facilities and experience may be, unless conveyed in an attractive manner it is a direct contradiction to your statement. The specimen sheets sent by the typefoundries could well be taken as models for advertising by many printers. They are not devoted entirely to long-drawn-out arguments as to the superiority of the type in question. All the talk in the world would not sell a series of type to a printer unless he saw specimens of that type arranged in an attractive manner. For the same reason an exhaustive statement of your ability will not brand you as the best printer in town unless you "make good." And this applies to all the details of printing. The fact that you have conceived an



of the press being in red, yellow and black and the other in red and black. As cards designed to appeal to the printer they are exceptionally good, both illustrations and reading matter being particularly appropriate.

MUCH of the advertising put forth by printers centers around the fact that they are equipped with the latest material and machinery, and, in consequence, are prepared to handle the finest class of work in the most modern manner. This information is conveyed to the prospective customer in many instances in the form of booklets and circulars, which, while they may have been produced under the most favorable circumstances as far as material is concerned, lack the careful attention and regard for detail in evidence in the really good printing. Fine presses, new type, the best of inks and the most modern equipment do not constitute good printing, and the purchaser thereof is far more interested in the appearance of his work than he is in the methods by which it is produced. When a man buys shoes, for instance, he is not particularly interested in whether the factory which makes them is equipped with the latest facilities or whether it turns out ten pairs of shoes a day or ten hundred. The points of vital interest to him are the price, appearance and wearing qualities. The intricate rule and panel design or an elaborate color scheme does not console the customer for the fact that possibly the rules do not join or the spaces have worked up in the lines. The only way to convince the public that you can do the best printing in the town is by doing it, and by all means commence with the booklet or circular which announces the fact. Dispense with some of the argument if necessary and put the time and effort thus saved into a careful attention to the mechanical details.

THE first number of *Pulman's Impressions*, a house magazine issued by G. Pulman & Sons, Ltd., London, England, has reached this department, and proves a very interesting and creditable advertisement for its promoters. No expense has been spared in its production, the typography, illustrations and presswork being of the very best. The text is printed on antique paper while the advertisements and illustrations are printed on India tint. Several colored productions mounted on dark cover-stock are interesting features. A department devoted to the answering of questions concerning type, paper, ink, processes — in fact, anything in relation to printing — will be one of the many attractions and should prove popular though printers contend that it is poor business to tell the customer too much.

TRADE NOTES

C. W. H. CARTER, manufacturer of all grades and kinds of printing inks, etc., New York city, has removed to No. 8 Ferry street.

A HANDSOME sample book of their new Sylvan Covers has been received from the Kalamazoo Paper Company, Kalamazoo, Michigan.

THE printers of the South will doubtless be glad to hear that the Buckie Printers' Roller Company, of Chicago and St. Paul, will open an up-to-date roller plant in Atlanta, Georgia, September 1.

"THE biggest printing year New York has ever seen" is anticipated by the members of the New York Typothetæ, the advertisement of which appears on another page calling for non-union operatives of all kinds.

THE Manz Engraving Company, Chicago, has bought from Mrs. Harriet L. Sulzer and others the northeast corner of East Ravenswood Park and Irving Park boulevard for $16,000. A plant to cost $125,000 will be built.

HIS many printer friends will be glad to hear that Ed. S. Ralph, who formerly conducted the Job Composition Department in THE INLAND PRINTER, is the very successful advertising manager of the American Seeding Machine Company, a $5,000,000 corporation in Springfield, Ohio, the leading concern in its line on earth.

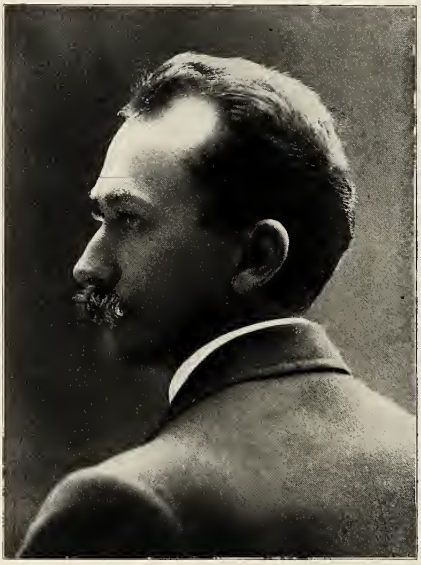
THE J. L. Morrison Company, of New York, makers of "Perfection" wire-stitching machines, have now established a western branch of their business at 354 Dearborn street, Chicago. This branch is under the management of Mr. Frederick C. Crofts, and it is the intention that all business of the company west of this point shall be under his direction. A full line of machines will be carried in stock as well as duplicate parts for all sizes of machines, wire, etc. Mr. Crofts has been with this company for over fifteen years and is thoroughly familiar with the needs of the trade generally throughout the country, having traveled extensively in connection with his business. He was in charge of the Morrison company's exhibits at the Pan American and Louisiana Purchase Expositions, the "Perfection" stitcher being awarded the gold medal at St. Louis.



FREDERICK C. CROFTS.

MR. KLEIN'S visit to the United States has been altogether too short to permit his friends seeing him as much as they desired. His first visit to America was replete with American strenuosity, divided among the principal cities, New York, Chicago, Detroit, Buffalo and Boston.

The mission of Mr. Klein related to collodion emulsion work, in which field he has done much research in his laboratory at 109 Farringdon Road, London, with Messrs. Penrose & Co. Contrary to a misconception as to the deleterious effects of American water and climatic conditions, Mr. Klein has found that the difficulties existing in the use of collodion emulsion prior to the introduction of U. P. M. special emulsion were due to the use of impure solvents; excess of water in solvents; impurity in water supply and chemicals. Mr. Klein's short stay has been very successful. He has reproduced some very difficult subjects, using a Penrose 1906 camera and Winfield



MR. HENRY O. KLEIN.
Photo by Palmer.

enclosed arc lamp at 220 volts with treble-colored orange flame carbons. Ideal darkroom construction and conditions were exemplified by white glazed paper on the walls, oilcloth on the floor, absence of unnecessary shelves — nothing to harbor dust — porcelain sink and Penrose safety lights. Mr. Klein says, referring to previous difficulties in operating collodion emulsion: "No blame can be attached to the operators, who are as intelligent a body of men I ever had the pleasure to instruct." If less "makeshift" were used in the equipment of darkrooms, etc., many of the difficulties that have been encountered in the past would be eliminated, as a matter of course. The American Colortype Company, of Chicago, received special instructions on their own premises for two weeks, and Mr. Lau, the progressive manager, who was to a large degree instrumental in having Mr. Klein visit this country, expressed himself as being well pleased with the work done. At Boston, special preparations have been made to manufacture the emulsion and sensitizers by the United Printing Machinery Company. It is a pleasure to record the fact that Mr. Klein was so well pleased with his first American experience that he seriously contemplates another visit next year, even though some American customs and usages caused him no small amount of humorous perplexity and

confusion when he first arrived. It is not generally known that to Mr. Klein belongs the honor of having made the first superior trichromatic carbon-print reproductions. At the beginning of the year the *British Journal of Photography* instituted an exhibition of pure color photography, and Mr. Klein was requested to exhibit his natural color carbon specimens made with films of the Rotary Photographic Company. This special exhibit was kept intact on account of its historical value, and the Royal Photographic Society of Great Britain, of which Mr. Klein is a fellow, desired it as a permanent exhibit because they were the first satisfactory color photographs shown. Mr. Klein, in an article in the September number of the *British Journal of Photography* for 1905, anticipated the introduction of special studios for color portrait photography. Such studios have recently been opened in London and Berlin, thus placing the author in the realm of prophets, being one, however, who is honored both in his own and adopted country and whose personality is highly prized by a fellow collaborator with him in London.

HERMAN C. LAMMERS and J. Lenhart Shilling have severed their connection with the Binner-Wells Company and have established themselves as the Lammers-Shilling Company, artists, designers, engravers and printed specialties. The studios are on the fifteenth floor of the Heyworth building, a new eighteen-story structure on the corner of Madison street and Wabash avenue, Chicago. Mr. Lammers, the president of the new concern, has had wide experience in all the details of art work covering a period of twenty years. Mr. Shilling, secretary and treasurer, has an enviable record in the practical details of platemaking, and many of the aids to perfect work now generally used were first introduced to the trade by him. The new company will confine its efforts exclusively to the line of making artistic creations and will have no printing-office adjunct.



HERMAN C. LAMMERS, PRESIDENT.



J. LENHART SHILLING, SECRETARY AND TREASURER.

THE partnership between S. B. W. Gay, A. F. Bird and J. S. Hamilton (trading as Gay & Bird), publishers, booksellers, and importers of American books and periodicals, of 22 Bedford street, Strand, London, has been dissolved. Mr. Gay is taking over the publications of the firm and will continue the publishing branch of the business under the old style of Gay & Bird at new premises, 12 and 13 Henrietta street, Strand. Mr. Bird, under whose personal supervision the importation of American books and periodicals and the general American book agency has hitherto been conducted, will continue this branch of the business at the present address, 22 Bedford street, Strand. Mr. Hamilton retires.

ACCORDING to the United States census figures, the output of the printing business in 1905 in the city of Chicago totaled over $48,000,000. To reach the houses who do this business there is no medium like THE INLAND PRINTER, which, while the most carefully read trade paper everywhere, is most popular of all at home.

R. LEE SHARPE, printer, of Carrollton, Georgia, contemplates opening a stationery and office supply store in connection with his printing business, and requests printers who have had experience in this line to write him whether the proposition is a feasible one. He offers to reciprocate with other valuable information.

THE Anderson-Van Etten Folding Machine Company, Jackson Centre, Ohio, is a coming concern. Their Mr. Van Etten is a well-known folder expert, having held responsible positions at the head of the mechanical departments of the Brown Folding Machine Company, Erie, Pennsylvania, and the Eclipse Folding Machine Company, Sidney, Ohio, before joining in the new enterprise. They make machines for both job-printers and newspapers.

VOORHEES & Co., who make a specialty of bank advertising, with offices at 116 Nassau street, New York, are preparing and placing an attractive line of copy in newspapers and magazines for banking institutions throughout the United States. H. Russell Voorhees, one of the partners in the firm, has just returned from a three months' business trip through the States of Ohio, Indiana, Illinois and Wisconsin, and expects to sail for Europe in the interest of Voorhees & Co. early in August.

THE Hoag Rapid Press Company, a California corporation, which has been developing the Hoag job-printing press in Hartford, Connecticut, has selected that city as its permanent location, on account of the superior mechanical facilities of its factories. The features of the new Hoag press are rapidity of action, its inking arrangements, its feeder attachment and its accuracy of adjustment. Its

officers are: President, J. A. Morrow; manager, E. J. F. Rea; secretary, J. C. Niggle. The press has been brought to a stage of perfection which justifies the officers of the company putting it on the market, and ten presses after the model of the one now in operation are to be built at once and the manufacture of these presses will be pushed rapidly. It is probable that a factory for the construction of the presses will be erected in Hartford in the near future.

THE Beckwith Company, of Norwich, Connecticut, manufacturers of art calendars and advertising specialties, has been incorporated under the same title, with an authorized capital of $25,000. The officers of the new concern are: Ansel A. Beckwith, president; Charles Palmer Potter, treasurer; Ansel E. Beckwith, secretary and general manager. The line of art calendars produced by this company is widely and favorably known and it is the intention of the new management to greatly increase the scope and quality of their business.

ONE of those agreeable occasions, when the cares of business are laid aside and felicitations of friends are offered at the hospitable board, was celebrated on August 1, when Mr. and Mrs. Daniel Boyle assembled their friends on the occasion of their twenty-fifth wedding anniversary. Mr. Boyle is widely known in the printing trades, and is a director of The Henry O. Shepard Company. His friends came in such numbers that a few badges would have given the surroundings all the similitude of a convention, and many handsome and useful gifts gave substantial assurance of the good will of the guests. The reception was a distinguished success. Mr. and Mrs. Boyle have numerous hostages to fortune, and the many editions present proved that in large assemblies the genial host and hostess must always feel at home.

THE Litchfield *Daily News* and *Weekly Monitor*, the oldest daily and weekly papers in Montgomery county, Illinois, have been purchased by a company of well known and wealthy business men, composed of C. E. Morgan, cashier of the Litchfield Bank & Trust Company; A. R. Stansifer, a real estate and insurance man, and A. T. Strange, well known business man. The office will be reëquipped, refurnished and refitted throughout, and both papers made to reflect credit on their makers. L. M. Ross, for fourteen years connected with the Republican papers of Carlinville, will be editor and manager. The new company starts out with the brightest sort of prospects, and while it will espouse the Republican principles as formerly, the newspaper portion will overshadow the political end and no faction will find favor in its columns.

MR. W. BRYANT RODERICK, a former advertising solicitor for the Pittsburg (Pa.) *Chronicle-Telegraph*, who, on the advent of the *Ohio Sun*, Columbus's new morning daily, was given the position of assistant advertising manager, has been promoted to the head of this department. Mr. Urban E. Dice, the retiring advertising manager, has been successively connected with the Columbus *Dispatch*, the Boston *Traveler* and Pittsburg *Gazette-Times* in this same capacity. He has resigned to accept the position of state manager in Pennsylvania of the Home Life Insurance Company, of New York, with headquarters at Pittsburg. Mr. Roderick is geniality personified and also, incidentally, knows about all there is to the advertising business. The *Ohio Sun*, which appeared for the first time on Independence Day under the management of Mr. C. C. Philbrick, is being held right up to the notch and by consistent efforts in all departments is making for itself a permanent place in Columbus and the State at large.

BUSINESS NOTICES

This department is exclusively for paid business announcements of advertisers, and for paid descriptions of articles, machinery and products recently introduced for the use of printers and the printing trades. Responsibility for all statements published hereunder rests upon the advertisers solely.

RATS are a nuisance in the printing-office, as many printers and pressmen admit. If troubled by the rodents, write the Rat Biscuit Company, Springfield, Ohio, for their unfailing rat exterminator.

PRINTERS on the lookout for the very latest novelties in blotting papers should write to the District of Columbia Paper Manufacturing Company, K and Potomac streets, Washington, D. C., for samples.

HAMPTON AULD, 859 Mt. Prospect avenue, Newark, New Jersey, has placed a new compound for the pressroom on the market called "Body Gum," which enables the pressman to smoothly cover the heaviest blocks and solid cuts without degrading the color and luster of the ink and entirely avoiding the nuisance of sheets sticking to the form and the peeling of stock, surely a consummation devoutly to be wished.

MR. CONKLIN, the electrical genius of national repute, with the Robbins & Myers Company, Springfield, Ohio, has devised a home-made, ready-to-use system of electrical control for rotary web and also cylinder presses that is a marvel for efficiency and economy. Big pressrooms using it pronounce it the best ever, and are astonished that any one would install any of the expensive systems on the market when the Robbins & Myers system may be had at cost of material. This company's sales to printers are increasing wonderfully. Their plant is one of the largest independent concerns in the world and their attention is devoted entirely to motors of less than fifteen horse-power. As their specialty includes the motors of printing-office capacity, the reason for their success is not hard to find. This company leads in the manufacture of small motors for many trades and has the greatest output of electric fans in the world. By reason of their heavy export trade, their factory is constantly run at full capacity, for when winter allows their fans to stop in one country the torrid days in another compel the little hummers to start for the relief of the uncomfortable ones.

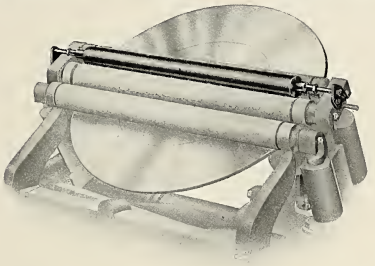
A GOOD THING.

The printer who has been obliged to nail a strip of wood across a large form in order to lift it, impose a form on the bed of the press or had a chase sprung because necessary to omit the cross-bar, will extend a cordial welcome to the new Temporary Adjustable Cross-bar advertised by Gilbert, Harris & Co. on another page of this issue. It is one of those simple things which make one wonder why it was not thought of before. Any one who has had anything to do with stonework will recognize its merit at a glance. A reference to the illustration on page 806 will give a better understanding of the device and its method

of use than a detailed description would. At the moderate price quoted, it will pay for itself many times over in a short while.

THE IDEAL VIBRATOR

Is the latest addition to the well known and popular Rouse line of specialties for printers. It is the long hoped for finishing touch to the facilities of the platen press. As the illustration shows, the vibrator travels with and against the two upper rollers and not only increases the rolling surface one-fourth but gives the additional distribution so



THE IDEAL VIBRATOR.

much needed. By means of this device double-rolling — always time-eating — may be avoided, and forms bounded by six-point black-face rule — which the old-time pressman locked up at an angle to help out the meager distribution— may be worked in the ordinary way without trouble. With the Ideal Vibrator it is feasible to work half-tone forms, something impracticable heretofore. The wide-awake printer will readily see the value of this improvement, for it practically enables the disc press to handle work heretofore assigned to the pony cylinder. By using the Ideal Vibrator the pressman can get good distribution and still maintain the disc press speed. The Ideal Vibrator must not be confounded with certain unsuccessful attempts along the same line, for the hundreds of the Rouse make in use by the leading printers of the country are pronounced a success. The Ideal Vibrator should be in every platen pressroom where the greatest possible output of good work is desired. It is made only by H. B. Rouse & Co., Chicago. Write them or your nearest dealer. All dealers sell them.

EIGHTEEN NEW ELECTROTYPING, STEREOTYPING AND PHOTOENGRAVING PLANTS.

The United States leads the world in number of electrotyping, stereotyping and photoengraving establishments, there being as many, or more, in this country than in all other countries combined. Yet compared with the great quantity of printing-offices these plate-making establishments do not seem numerous, amounting in the United States to less than two per cent of the former in point of numbers.

From this it will be realized how the field of the manufacturer and dealer in machinery and supplies for the electrotyper, stereotyper and photoengraver is circumscribed. The law of supply and demand has of course regulated the number of such manufacturers and dealers, but the amount of business done by each can not be regulated by any other law than the law of supremacy. Thus the F. Wesel Manufacturing Company may be heartily congratulated upon the magnificent showing it has made lately, having sold no less than eighteen complete plants since February, 1906, in addition to an enormous volume of business consisting of smaller orders from printers and platemakers.

The list of firms who have installed the Wesel equipments referred to are: Electrotyping plants: Richmond Type and Electrotype Foundry, Richmond, Virginia (with individual electric motors); American Type Founders Company, Portland, Oregon; Filmer Brothers' Electrotype Company, San Francisco (with motors); Schmidt Lithograph Company, San Francisco (with motors); H. C. Tibbetts, San Francisco; F. A. Owen Publishing Company, Dansville, New York (with motors); Blade Printing and Paper Company, Toledo, Ohio; Quincy Photoengraving Company, Quincy, Illinois. Photoengraving plants: "O' Paz," Rio de Janeiro, Brazil; F. M. Switzer, Halifax, Nova Scotia; Photoengravers Ltd., Toronto, Ontario; J. K. McInnis, Regina, Saskatchewan, Canada; L. B. Bingley, San Francisco, California; Smithers, Nordenholt & Co., Managua, Nicaragua; Faithorn Printing Company, Chicago, Illinois. Stereotyping plants: McCaskey Register Company, Alliance, Ohio; Filmer Brothers Electrotype Company, San Francisco, California; Canada Tag & Label Printing Company, Montreal, Canada.

Almost every item on these orders was supplied from the regular stock carried by the Wesel Company, and in cases where individual electric motors were attached to the machines, the plants were ready to start operation upon being connected to the supply wire.

Our readers will doubtless remember that last September, at the time of the twenty-fifth anniversary celebration of this company, the company had just got back into working shape after making additions and improvements to its factory building and mechanical equipment in Brooklyn, which actually doubled its manufacturing capacity. The need of this expansion had been forced on them by their inability to keep up with the demand for Wesel quality machinery, and at the rate its business is growing they will soon be in the same position again, as every wheel in its large and model factory is going at its fullest capacity filling orders.

SPECIMEN HALF-TONES.

The truth of the axiom, "The proof of the pudding is in the eating," is as applicable to the question of quality in half-tone reproductions from photographs as to any other thing or condition.

Specimen half-tones are invariably made from retouched photographs of particularly interesting or attractive subjects.

The average quality of copy furnished the engraver is of a grade far below that of the copy selected for specimen cuts.

Proofs of the engraver's best work from the best copy obtainable, and of his best work from the average copy sent him, must necessarily show a decided difference in the quality of the pictures, and it is safe to say that not one photo. in a hundred is good copy for a specimen cut.

It does not follow that specimens are intentional misrepresentations as to quality—under like conditions the engraver's work should be uniform; but what to expect from your copy can not be judged by specimen half-tones. The proof of the engraver's ability is best shown in the quality of the cuts made from copy you have furnished.

It is safe to say that in selecting the grade of half-tones for use on a particular quality of stock — the coarser the paper and thinner the ink — the coarser the cuts should be, and the finer the paper and stiffer the ink — the finer the cuts can be.

In general, the following should govern the selection:

For news stock (to be stereotyped), 65-line, for news stock (not stereotyped), 85-line; for book stock, 100-line; for S. & S. C. stock, 120 and 133 line; for coated stock, 133 and 150 line, and for superfine stock, 150 and 175 line.

Coarse half-tones printed on coated stock with stiff ink is less a mistake than to print fine half-tones with thin ink on rough stock. The grade preferred should be given in the order, otherwise it will be assumed the cuts are for average printing and made 120 or 133 line, according to the subject.

To be just right every half-tone must be etched and reëtched until it is rich in contrast and free from solid color, and of a depth that will not blur or fill up in printing.

There is no difference in the cost of making or the price for 65-line or up to 150-line half-tones. Every cut, coarse or fine, must be handled alike and given the utmost care in every detail of its production.

Where cheap cuts are desired, 65 and 85 line zinc half-tones can be bought for one-third less than copper half-tones. They are not reëtched, can not be vignetted, are simply square finished half-tone reproductions of the copy furnished. We do not recommend them, yet they have the merit of cheapness, and are in demand.—*Geo. H. Benedict.*

THE LARGEST ON EARTH.

Ask any electrotyper which is the largest electrotype foundry on earth. The answer will be The Globe Engraving & Electrotype Company, 407-427 Dearborn street, Chicago, Illinois. As in other lines of manufacturing, the largest plant and largest business is never created by cheap methods — quality and service are the prime factors — so with engraving and electrotyping. The "Globe" plant is the largest, because they are handling the work of the largest buyers of electrotypes in the United States — it is the service that holds their patronage. If you appreciate quality and service they can do as well for you.

A POPULAR PRESS.

The Chandler & Price Company, Cleveland, Ohio, report that they have sold and delivered during the year ending July 31, 1906, 3,002 of their Gordon presses. The present demand for these presses is greater than ever before in the history of the company, and they are putting the finishing touches on an addition to their factory which will enlarge it fifty per cent, giving them a total floor space of over ten and one-half acres. They expect to have this addition in full operation by the beginning of 1907, and will then be in a position to turn out four hundred Gordon presses a month.

A NEW PRESS.

The Coy Printing Press Company, 49 Plymouth place, Chicago, announces the advent of its new two-color and perfecting rotary web press and the recent installation of one at the above number, and extends this invitation to printers and publishers in general — the local trade particularly — to call and see it in operation.

The new press has thus far excited the admiration of all who have seen it and it is freely predicted that it will prove an attractive proposition to all those who are not entirely satisfied with present-day methods and appliances.

So flattering has been its reception that orders for it were booked before the first one left the factory and sales are now being made without the aid of either salesmen or advertisement.

In general appearance it resembles the flat form rotary machines which for several years have been manufactured by this company, but in the matter of making the impression it is radically different. The new one uses curved printing-plates, either stereotypes or electros. It can deliver sheets having 24 by 36 inches of printed matter on one side at the rate of three thousand per hour. It delivers three thousand sheets per hour with 12 by 36 two-color impressions in perfect register, one side, or a like number in one color on each side of the sheet. The press recently in a trial run for a purchaser delivered one hundred and sixty thousand 9 by 12-inch sheets in less than nine hours including stops, and in the words of the operator, "it never turned a hair," so deliberate and quiet are all its movements.

As a regular printing-press proposition this new machine will undoubtedly prove to be a "good thing," but when working with its various special attachments it becomes little less than a wonder, for it does in one operation without lessened speed what usually requires from three to six distinct manipulations by ordinary methods: for example, it numbers, pages, slits, "dies," scores, perforates, prints, folds, interleaves, jogs or rewinds. It is in the broadest sense an "all size" rotary, for it can deliver sheets from one inch square up to 30 by 36.

As a printing-press it will be a valuable acquisition to any printing plant where long runs are common or desirable, and for specialty printing, embracing two or more of the above named operations, it is incomparably superior to anything ever offered to the trade in this country.

THE BOOK OF THE HOUR.

The Keystone Type Foundry has a handsome insert in this issue which is something of a novelty as an announcement of its new specimen book, an exterior view of which is reproduced by three-color process which shows "The Book of the Hour" to be well printed and bound and of handy size. Many new, handsome type-faces, borders and ornaments and a large variety of printers' furniture and material are shown, and considerable attention has been given to selling and general information useful to buyers. Nothing better shows the growth and progress of the Keystone than a comparison of its earlier specimen books with the present one, and this foundry, while not the largest, must now be counted among the leaders in its line. Below we reprint the circular announcing the distribution of the book:

"ANNOUNCEMENT.

"We are now sending to printers and publishers on our mailing list our new 1906-7 specimen book. It is a blue cloth-bound handbook of convenient size, containing 624 pages carefully compiled, arranged and well printed.

"The largely increased variety of new and original type-faces will be noted. They are designed to meet the rational demand of printers and their customers, and publishers and their advertisers, for plain and artistic letters. Superfluous ornamentation and overhangings have been avoided wherever possible.

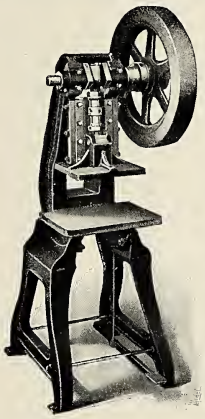
"The assortment includes everything needful in job and advertising display types; romans and italics; old styles and italics; monotones and italics; gothics and italics; Caslons and italics; texts, typewriters, Germans, borders and ornaments. Nickel-alloy metal, every pound of which is mixed in our own foundry, is used exclusively for casting Keystone type. It is susceptible of great tension or strain, is of close texture, possesses great endurance, and is recognized superior for printing, electrotyping and stereotyping. No other foundry can furnish it.

"The universal lining system embodies all of the best time, labor and money saving features of all such systems. It is an advantage to printers and publishers and large

advertisers to have their names upon our mailing list, which will insure that they receive this book, and specimens as issued. It is also to their advantage to deal direct with our own houses at Philadelphia, New York, Chicago, Detroit, Atlanta and San Francisco, or our selling agents at Chicago, New Haven, Richmond, Dallas and London, England. KEYSTONE TYPE FOUNDRY."

THE DEWES OPEN DIE PRESS

Is regarded as a decided acquisition by members of the trade interested in knife-edge cutting dies. It is a powerfully built drop press, with guides cast solid to upper platen, thus insuring accuracy of cut. In operating the press rests automatically on the up-stroke while the knife and material are adjusted, and operates instantly on release of clutch by pressure on treadle. The machine has a range covering sizes up to 12 by 14 inches; the dimensions of lower platen or table are 15 by 24 inches. For cutting small work such as labels, stationery, lithographic designs, celluloid or any fibrous material, the Dewes press will be found an effective, time-saving and economical device.



DEWES OPEN DIE PRESS.

This valuable machine is for sale by the A. Dewes Company, 247-249 Centre street, New York city, who also make a number of other machines esteemed by printers, and also make special machinery to order, also male and female dies, etc.

THE VICTORIA PLATEN PRESSES.

The advent of the Victoria press in the American market is a matter of decided interest to the printing trade. The Victoria is, in general design, of the well-known Universal type and is manufactured by Messrs. Rockstroh & Schneider, of Dresden-Heidenau, Germany. The machine embodies all of the good features of its prototypes and a great many others which will instantly claim the attention of all interested in the printing trade, and who appreciate radical improvements.

Some of its principal advantages may be summarized: The friction clutch, with fly-wheel in constant motion; automatic stop, after each impression; hand safety guard, making crushed hands impossible; improved operation of roller carriage by cut cog-wheel gearing, entirely dispensing with cam in the main gear wheel; an arrangement for simultaneous throw-off of all rollers from the cylinders and carriage ways, thus avoiding the removal of rollers when the machine is stopped or not working and admitting of cleaning them in the press. It is a remarkably powerful machine and has probably much more than double the ink distribution possessed by any of our best known machines of this type. The grippers are depressible to the face of the platen for setting and this also obviates the lifting of heavy forms higher than the platen. A very simple device, and one that will be appreciated, is that for adjusting the form rollers to the ways or bearers, so that not only the shrinkage is provided for, but their exact degree of contact required upon the form may be instantly obtained. A decidedly commendable feature of the Victoria press is its perfect safety in operation, there being absolutely no possibility of crushing the fingers.

Mr. Robert Coddington, so widely known in connection with machines of this type, has recently returned from a visit to the manufacturers with whom he has arranged for the introduction of the Victoria press in this country. Mr. Coddington's undertaking should be not only successful but also a congenial and familiar task, for he was the first to introduce the original Universal press in 1869, and in 1872 he took up its manufacture in England. Returning to this country temporarily in 1873, he placed the American business in the hands of the Colt's Fire Arms Manufacturing Company of Hartford, Connecticut, where it remained for so many years. More recently, as every man connected with the printing and allied trades knows, Mr. Coddington has been associated with John Thomson Press Company.

ATKINS METAL-CUTTING SAW.

"For quite a number of years the printing-offices of the country have contented themselves with the use of an ordinary saw about eight inches in length and three inches in height for the purpose of sawing reglets, slugs, bases, rules, steel, iron and other kinds of metals, so often made use of in a business of this character, but it can not be truthfully said that they have given universal satisfaction. Several days ago the Memphis *Times* composing-room secured what is known as a "nest" of No. 3 saws, manufactured by E. C. Atkins & Co., whose general office and immense factories are located at Indianapolis, Indiana.

"At first we were a bit skeptical as to their use in the manner required in our composing-rooms, but in order to give the firm making them as square a deal as it was possible for us to do, we subjected them to a far more severe test than the regular composing-room saws were ever subjected to, and without doubt they beat anything for actual, practical, clean and even sawing that we have ever seen. They are certainly superior to anything else on the market and so far as their use in a composing-room is concerned, they are far in advance of everything else that has ever come to our notice. In sawing the tough, heavy brass column rules, it is done as smoothly as the large machines made for that specific purpose. In sawing brass there is nothing manufactured that can touch them. The saw's teeth leave no blemish or uneven surface. Everything is as neat, square and true as one could desire.

"There is no printer or publisher conducting any character of composing-room, large or small, who has not almost daily use for a good metal-cutting saw, and when we announce the Atkins saws the acme of perfection in this connection, we do so without the remotest fear of contradiction from any source." — *Memphis (Tenn.) Times.*

A MACHINE THAT "DOES THINGS."

In the early days of the manufacture of printing-presses a large degree of intelligence was demanded of the operators, but to-day, thanks to the marvelous machinery now produced for the use of the printing world, the intelligence lies inherent in the mechanism itself — or seems to, in the eyes of any one watching the swift and comprehensive work performed. Particularly is this true of the "specialized" machinery such, for instance, as is described in the American Falcon Printing Press Company's advertisement on page 760 of August issue. The particulars there given apply to the Waite Countercheck Book Machine, which turns out in a very complete manner the usual countercheck book required by the majority of stores

in their systems dealing with the retail trade, where millions of these books are consumed every week. The Waite Countercheck Book Machine was invented and has been improved constantly since, to meet the demand for a cheap and efficient method for turning out this class of work; and such result it effects in a way to delight the lover of mechanics and to the satisfaction of the printer whose objects it so thoroughly accomplishes.

From a continuous roll of paper (from flat forms) of a size fifteen to eighteen inches wide, it prints, numbers, perforates, slits and delivers on both sides of the machine, in lots of fifty each.

It numbers from one to fifty, or from fifty to a hundred from "numbering chains" inked as are pads used with rubber stamps. It makes two perforations — one original and one duplicate, and a rocking cradle works the press-bed as it prints.

After slitting and perforating, the machine makes one fold before delivery, leaving the sheets ready for binding. Nor is the resulting printing of the make-shift kind. On the contrary, in appearance it is clean, clear and distinct. The numerous advantages claimed for this machine may be learned by addressing the company at its New York office, 39 Beekman street.

THE IMITATION TYPEWRITTEN LETTER.

Nearly every large concern is to-day using a follow-up system in conjunction with their advertising — as an aid to their salesmen, as a means of opening new territory, to hold their present customers and develop new ones — and all of them are using imitation typewritten letters by the thousands and in some cases by the millions. Without exception the imitation typewritten letter properly printed, with the name and address filled in to match, has proven to be the most effective method these concerns can adopt to keep in touch with their trade. Very few concerns are having their follow-up letters written on the typewriter, on account of the enormous expense where it is desired to get out any quantity. It is a saving of this expense that has brought the imitation typewritten letter to the front until it is to-day recognized as an absolute necessity. Old concerns that have been using them find that they can not get along without them, and new firms are daily taking them up. It is absolutely necessary, however, that the imitation *be an imitation in fact as well as in name*, and that *the fill-in of name and address match perfectly with the body of the letter*. Otherwise the effectiveness is entirely lost.

There is no more profitable department that a printer can maintain than the department for printing these letters. The equipment of type, presses and accessories is inexpensive and the cost of composition is trifling, because these letters require no special skill on the part of the compositor. The stock is usually furnished, so that the purchase account is a very small item. In this class of work the prices average from 75 cents per thousand impressions in long runs to $3 per thousand in short runs, and not alone is the margin of profit exceptionally good, but the additional work it frequently leads to is a great consideration. The average job-printer has probably had several sad experiences with this class of work endeavoring to match with job ink the particular shade or color of a customer's typewriter ribbon, and usually with the most unsatisfactory results.

In all large cities there are certain houses who make a specialty of printing imitation typewritten letters, and they, as a rule, guard their process and refuse to reveal any of the details as to the proper handling of this class of work to any one outside of their immediate shop. The kind of ink, style of type, make-ready, etc., are all matters they refuse to divulge. Without doubt the H. M. Van Hoesen Company, 114-116 Sherman street, Chicago, are the largest printers of imitation typewritten letters in the world. While Mr. H. M. Van Hoesen, president and treasurer of this company, has been associated with printing houses for the past fifteen years, it is only since 1902 that they have been making a specialty of letters. When they started in business they had three Gordon presses and three typewriters, but to-day they have twenty Gordons, twelve of which are the 12 by 18 size, and sixty typewriters, and during the four years of their business career have increased their floor space over four hundred per cent. Their capacity is now over seven hundred and fifty thousand letters per day.

In conversation with Mr. Van Hoesen recently, he said: "While we have been very successful in our business, there is no reason why any wide-awake printer could not duplicate our success, *if he knew how*.

"When I first went into this business I experienced great difficulty in getting ink that would work satisfactorily and have ribbons to use on the typewriters that would match perfectly when letters were filled in. I was unable to turn out the quality of letters my customers demanded until I commenced purchasing inks and ribbons of the Typeribbon Manufacturing Company, and I really credit my success as much to the quality of goods I received from them as anything else. Several months ago the Typeribbon Manufacturing Company was incorporated and I was fortunate in being able to purchase the controlling interest, and I have decided to increase our business with the printers throughout the country by offering them not only the best ink and ribbons made for the purpose, but also complete information regarding their use, method of handling, etc. A complete book of instructions will be furnished them, so that their success is assured, if they will but read and study it. Our advertising campaign starts in September, and it is needless to add that I expect to be represented in THE INLAND PRINTER regularly."

WANT ADVERTISEMENTS.

We will receive want advertisements for THE INLAND PRINTER at a price of 50 cents for 20 words or less, each additional 10 words or less 25 cents, for the "Situations Wanted" department; or 80 cents for 20 words or less, each additional 10 words or less 40 cents, under any of the other headings. Address to be counted. Price invariably the same whether one or more insertions are taken. **Cash must accompany the order to insure insertion in current number. The insertion of ads. received in Chicago later than the 18th of the month preceding publication not guaranteed.**

BOOKS.

BOOKS — A valuable set for sale cheap; 18 bound volumes INLAND PRINTER, Nos. IV to XXII. S 443.

COST OF PRINTING, by F. W. Baltes, presents a system of accounting which has been in successful operation for many years, is suitable for large or small printing-offices, and is a safeguard against errors, omissions or losses; its use makes it absolutely certain that no work can pass through the office without being charged, and its actual cost in all details shown; 74 pages, 6¾ by 10 inches, cloth, $1.50. THE INLAND PRINTER COMPANY, Chicago.

DRAWING FOR PRINTERS, a practical treatise on the art of designing and illustrating in connection with typography; containing complete instructions, fully illustrated, concerning the art of drawing, for the beginner as well as the more advanced student, by Ernest Knaufft, Editor of *The Art Student*, and Director of the Chautauqua Society of Fine Arts; 240 pages, cloth, $2 postpaid. THE INLAND PRINTER COMPANY, Chicago.

ELECTROTYPING, a practical treatise on the art of electrotyping by the latest known methods, containing the historical review of the subject, full description of the tools and machinery required, and complete instructions for operating an electrotyping plant, by C. S. Partridge, Editor of "Electrotyping and Stereotyping" department of THE INLAND PRINTER; 150 pages, cloth, $1.50 postpaid. THE INLAND PRINTER COMPANY, Chicago.

FOR COPIES December, 1905, and January, 1906, issues INLAND PRINTER sent us postpaid we will send in exchange copies of October and November, 1906, issues INLAND PRINTER. S 486.

BOOKS.

FOR SALE — Volume 1 of THE INLAND PRINTER, unbound, in good condition; best offer takes it. G 57.

HINTS ON IMPOSITION, a handbook for printers, by T. B. Williams. This book is a thoroughly reliable guide to the imposition of book forms, and shows, in addition to the usual diagrams, the folds of the sheet for each form, with concise instructions; several chapters are devoted to "making" the margins; 96 pages, 4 by 6 inches, full leather, flexible, gold side stamp, $1. THE INLAND PRINTER COMPANY, Chicago.

PHOTOENGRAVING, by H. Jenkins, containing practical instructions for producing photoengraved plates in relief-line and half-tone with chapters on dry-plate development and half-tone colorwork; no pains have been spared to make the work of utility, and all generalizing has been avoided; no theories have been advanced; profuse examples show the varied forms of engraving, the three-color process being very beautifully illustrated, with progressive proofs; blue silk cloth, gold embossed, revised edition, $2. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL FACTS FOR PRINTERS, by Lee A. Riley; just what its name indicates; compiled by a practical man, and said to be the most practical little book ever offered to the trade; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

PRACTICAL GUIDE TO EMBOSSING, written by P. J. Lawlor, and published under the title "Embossing Made Easy"; we have had this book thoroughly revised and brought up to date, and added a chapter on cylinder press embossing; contains instructions for embossing by the various methods applicable to ordinary job presses, for making dies from various materials readily obtained by every printer; also for etching dies on zinc; there are cuts of the necessary tools, and a diagram showing the operation of the dies when put on the press; 75 cents. THE INLAND PRINTER COMPANY, Chicago.

PRESSWORK, a manual of practice for printing pressmen and pressroom apprentices, by William J. Kelly; the only complete and authentic work on the subject ever published; new and enlarged edition, containing much valuable information not in previous editions; full cloth, 140 pages, $1.50. THE INLAND PRINTER COMPANY, Chicago.

THE RUBAIYAT OF MIRZA MEM'N, published by Henry Olendorf Shepard, Chicago, is modeled on the Rubaiyat of Omar Khayyam; the delicate imagery of Old Omar has been preserved in this modern Rubaiyat, and there are new gems that give it high place in the estimation of competent critics; as a gift-book nothing is more appropriate; the binding is superb, the text is artistically set on white plate paper, the illustrations are half-tones from original paintings, hand-tooled; size of book, 7¾ by 9¾, art vellum cloth, combination white and purple or full purple, $1.50; edition de luxe, red or brown India ooze leather, $4; pocket edition, 3 by 5¾, 76 pages, bound in blue cloth, lettered in gold on front and back, complete in every way except the illustrations, with full explanatory notes and exhaustive index, 50 cents. THE INLAND PRINTER COMPANY, Chicago.

VEST-POCKET MANUAL OF PRINTING, a full and concise explanation of the technical points in the printing trade, for the use of the printer and his patrons; contains rules for punctuation and capitalization, style, marking proof, make-up of a book, sizes of books, sizes of the untrimmed leaf, number of words in a square inch, diagrams of imposition, and much other valuable information not always at hand when wanted; 50 cents. THE INLAND PRINTER COMPANY, Chicago.

BUSINESS OPPORTUNITIES.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

FOR SALE — Complete newspaper and job plant in excellent condition, publishing daily 1,600 circulation, weekly 2,500, in growing city of 12,000 population; doing between $2,500 and $3,000 of business per month and steadily increasing; in splendid field to improve. For particulars, price and terms write C. A. McCOY, Lake Charles, La.

FOR SALE — One of the most modern and complete job printing offices in western Canada, fully equipped with modern machinery and up-to-date stock; yearly turnover $40,000; owner, on account of wife's health, wishes to remove and will sell at a bargain; for all particulars apply to the TORONTO TYPE FOUNDRY CO., Ltd., Winnipeg, Canada.

OLD AND SUCCESSFUL job printing and binding plant is to be reorganized because of ill health of one partner; exceptional location, highest standing, owes nothing, inventories nearly $50,000; solicits no business and can not take all offered; present earning of over ten per cent net can be doubled; investigate. BOX 203, Waterbury, Conn.

PRINTING — All-round, intelligent printer as working foreman, in medium-sized office, doing high-grade work; should be compositor of exceptional ability, capable of proofreading, passing on press proofs and overseeing the product of about twenty hands; must be open-shop man, not over 40 years of age, married, and on approval must purchase at least $2,000 interest; excellent plant, doing about $50,000 per annum; good opportunity to competent man. S 465.

Publishing.

PRINTERS desiring to become publishers should obtain my booklet "How." Sent upon request. EMERSON P. HARRIS, 253 Broadway, New York.

FOR SALE OR EXCHANGE.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

A BEST MANUFACTURED STEREOTYPE PAPER, which is ready for use, for Cold or Hot Process; our Patent Front and Back Matrix Paper requires only two seconds to make ready and to beat or to press in; each matrix will cast a number of excellent plates; we mail 12 Front and 12 Back Matrix sheets for $1; we also have the largest selection of Stereotype Machinery of latest improvements. F. SCHREINER MFG. CO., Plainfield, N. J.

AN ELECTROTYPE beveling machine, in good condition, will be sold cheap. WILD & PCHELLAS, 113 Oak st., Buffalo, N. Y.

BARGAIN IN CAMPBELL — 37 by 52 Campbell book press, 2 revolution, wire springs, 4 roller, table distribution, front fly delivery and impression trip, counter and slitter, jogger, $800, guaranteed to register, overhauled; rebuilt presses, cutters, etc., of every description. A. F. WANNER, & CO., 298 Dearborn st., Chicago.

FOR SALE — Campbell press. JOHN W. STOCKER & SON, 510 W. Marianna av. or Schubert av., Chicago. Phone, Humboldt 460.

FOR SALE CHEAP — 13 by 19 Universal press. 314 17th st., Moline, Ill.

FOR SALE — One Goss clipper, 6, 7, 8 or 9 column, printing-press, stereotype outfit complete, practically new; will sell cheap. Apply to E. M. RODROCK, Paterson, N. J.

FOR SALE — Two 37 by 52 Campbell book and job presses; one 28 by 42 Campbell complete; these machines will be sold at a very low price for spot cash. S 451.

SMALL MODERN PRINTING-OFFICE in the heart of New York city, employing one compositor and two feeders, earning from $50 to $60 per week, very small expenses; a rare opportunity; a good reason for selling. S 476, care of New York Office INLAND PRINTER.

2-REVOLUTION PRESS, 44 by 60 Babcock Optimus, air springs, 4 form rollers, table distribution, 4 track, front sheet delivery, back-up, overhauled and guaranteed to register, $1,600; large stock cylinder and job presses, cutters, stitcher, etc.; send for illustrated lists. A. F. WANNER & CO., 298 Dearborn st., Chicago.

HELP WANTED.

Letters in reply to these advertisements will be forwarded without extra charge. Specimens of work or advertising matter will not be forwarded unless necessary postage is sent us.

ARE YOU LOOKING FOR WORK? File your name with The Inland Printer Employment Exchange, and it will reach all employers seeking help in any department. Situations were secured during the past month for the following: Job-printers, 6; Linotype operators, 10; Linotype machinists, 3; machinist-operators, 5; foremen, 3; all-round men, 3; bookbinders, 4; paper-cutter, 1; estimator, 1; solicitor, 1; make-ups, 2; stonemen, 3; ad.-man, 1; artists, 3; photoengravers, 3; pressmen, 5. Registration fee, $1; name remains on list until situation is secured; blanks sent on request. THE INLAND PRINTER COMPANY, Chicago.

Artists.

ARTISTS WANTED for mechanical wash drawing, retouching and artistic designing; position permanent; send specimens; state salary. INDIANAPOLIS ENGRAVING & ELECTROTYPING CO., P. O. Box 103, Indianapolis.

ARTIST WANTED to take charge of Art Department of modern newspaper office in Pennsylvania; must be able to make good line and wash drawings for newspaper, and understand retouching and designing for commercial work; excellent position at good salary for able artist; address, stating experience, S 477.

Bindery.

WANTED — A young man or boy to learn ruling; state experience and wages expected. A. A. MAST, Everett, Wash.

Composing-room.

WANTED — Two stonemen; open shop, small city in New England State; permanent position. S 457.

Engravers.

FOREMAN OF ENGRAVING DEPARTMENT WANTED — One who is capable of making first-class half-tone negatives for newspaper and commercial work, and understands photoengraving throughout; extraordinary opportunity for competent and progressive man; steady position; fine working rooms, first-class equipment, good organization, beautiful, healthy city; state experience and particulars. MANAGER, GRIT, Williamsport, Pa.

WE WILL ENLARGE our business soon, and desire competent help; we want men who are now employed; strictly sober and reliable; artist capable of taking charge of department, also specialists; process men desiring to locate in the South write; photographer capable of foremanship and zinc etcher who can rout needed at once. WHITE ENGRAVING COMPANY, Dallas, Texas.

Knife Grinders

Machines sent on thirty days' trial to responsible parties. If interested, write us. Complete Bindery outfits.

SIMPLE—AUTOMATIC—GUARANTEED

Using Emery Wheels Arranged for Wet or Dry Grinding.

NOTE—Sizes given are for length of knife (not width of cutter).

Style E — To stand on bench. Dry grinding only. 26-in. $50, 32-in. $55, 38-in. $60.
Style A — With iron stand. Wet or dry grinding. 26-in. $75, 32-in. $85, 38-in. $90, 44-in. $100, 54-in. $115, 60-in. $150. With water attachment, $10 extra.
Style C — Extra heavy. Wet and dry grinding. 54-in. $185, 60-in. $185, 75-in. $205, 90-in. $225.

THE BLACKHALL MFG. CO., 12 Lock St., Buffalo, N. Y.

HELP WANTED.

Foremen.

WANTED — Competent working foreman for job composing-room; open shop. P. B. HABER PRINTING CO., Fond du Lac, Wis.

Manager.

WANTED — An experienced and practical man to manage a job and newspaper plant, with a daily and weekly paper, doing an annual business of over $25,000; desire the party able to buy an interest in and take full charge of the business. For particulars address S 262.

Operators and Machinists.

WANTED — Linotype operators; must be sober, fast men; give particulars and references. S 480.

WANTED — Strictly first-class Linotype operators for high-grade bookwork; steady, reliable, union. S 380.

Pressroom.

PRESSMAN — Foreman for cylinder pressroom; steady for competent and reliable man. P. O. BOX 598, St. Louis, Mo.

WANTED — Gordon pressman capable of mixing colors and doing all classes of commercial work; one familiar with composition preferred; good place, no time lost; references required. S 485.

Superintendents.

FOREMEN AND SUPERINTENDENTS wanted everywhere to give Puck's Soap a trial in every department of your plant. It makes an efficient force more effective by saving their time and their hands. It costs no more than poor soap and saves a man's time and patience. See our advertisement elsewhere in this issue. Trial order of two dozen cakes sent direct, prepaid, for $1, from our nearest branch. PUCK SOAP COMPANY, Des Moines, Iowa.

Miscellaneous.

WANTED — Printers and workmen who handle type and ink to try Puck's Soap. It is now in use in the largest shops in the United States. It is the most effective and efficient soap made and costs no more than the ordinary kind. A trial order of two dozen will be sent for $1, prepaid, from our nearest branch; sent anywhere in the United States. See ad. elsewhere in this issue. PUCK SOAP COMPANY, Des Moines, Iowa.

SITUATIONS WANTED.

DO YOU WANT HELP FOR ANY DEPARTMENT? The Inland Printer Employment Exchange has lists of available employees for all departments, which are furnished free of charge. The following are now listed with us, seeking employment: Advertising and business managers, 4; solicitor, 1; make-ups, 2; ad.-writer, 1; stoneman, 1; Monotype operators, 3; electrotypers and stereotypers, 2; Linotype machinists, 7; Linotype operators, 15; machinist-operators, 14; superintendents and foremen, 15; job-printers, 8; editors and reporters, 4; photoengravers, 2; steel engraver, 1; all-round men, 4; artists and cartoonists, 3; proofreaders, 4; pressmen, 11; ad.-men, 2; bookbinders, 3. THE INLAND PRINTER COMPANY, Chicago.

Artists.

ARTIST of wide and varied experience in all classes of drawing for the trade; references and drawings upon request; write me. S 475.

Electrotypers and Stereotypers.

WANTED — An experienced foreman electrotyper in all its branches wishes a position to take charge of electrotype plant anywhere; will guarantee the production of first-class plates in return for a fair salary; may consider a business proposition after investigation. S 456.

Managers.

COMPETENT, specially equipped manager (employed) is open to correspondence; can put your plant to the front in quality, quantity and price; practical man all through; give details of plant and salary you will pay; must be permanent position; might consider assistant manager or sales manager. S 107.

Superintendents and Foremen.

A THOROUGH COMPOSITOR, Linotype operator-machinist and pressman desires foremanship of medium-sized office doing high-grade printing, where there is a chance to purchase an interest if mutually agreeable; 10 years in charge in New York city; married; prefer Eastern States. S 462.

I AM AN EXPERIENCED FOREMAN and bookbinder in all branches of the trade; have been away from the trade some months, now wish a position as foreman; prefer blank books or Co. work; would like to go Northwest or West. S 472.

PRACTICAL PRINTER desires to change location; accurate estimator; can turn out highest grade work; manager, superintendent or foreman. S 474.

Operators and Machinists.

EXPERIENCED MONOTYPE OPERATOR (lady) desires change October first; open shop, Philadelphia, Baltimore or Washington preferred. P. O. BOX 2305, Boston, Mass.

LINOTYPE MACHINIST open for position in office of five machines or more; can produce results; married. S 483.

LINOTYPE MACHINIST-OPERATOR (printer), swift, clean, able to handle intricate composition (catalogue work, foreign languages), would change present place of employment. S 421.

LINOTYPE OPERATOR (female); 4,600 per hour; clean proof; familiar with all kinds of work; New York preferred. S 463.

LINOTYPE OPERATOR-MACHINIST, married, sober, union; 5,000 ems brevier an hour. S 461.

MACHINIST-OPERATOR — Six years' experience, sober and reliable; can deliver the goods; can rebuild old machines. S 466.

POSITION WANTED as Monotype keyboard operator by young woman; experienced on both table and straight matter. S 464.

Pressroom.

CYLINDER AND ROTARY PRESSMAN — Desiring to make change; 10 years' experience with best classes of work on cylinder and rotary presses. S 397.

CYLINDER PRESSMAN — A-1 on half-tone and color work; in charge of one of the largest pressrooms in the South; Omaha preferred; will go any place. S 467.

FIRST-CLASS CYLINDER PRESSMAN desires to make change; understands Dexter feeder; state wages. Box 341, Norwalk, Ohio.

Salesmen.

MAN WHO SOLD seventy thousand dollars' worth of machinery last year wants agency for good line on commission only, paying his own expenses. S 460.

WANTED TO PURCHASE.

FOLDER WANTED — For jobbing work; 8 and 16 page, range of work from 12 by 18 to 25 by 38; point feed or marginal register. THE TUTTLE CO., Rutland, Vt.

SMALL DAILY WANTED. FRANK H. KNOX (broker), Albany, N. Y.

SMYTHE SEWING MACHINE WANTED — New Model No. 3 or No. 4, or old style, at once. THE TUTTLE CO., Rutland, Vt.

MISCELLANEOUS.

A COLD SIMPLEX STEREOTYPING OUTFIT, $17 and up, produces the finest book and job plates, and your type is not in danger of being ruined by heat; simpler, better, quicker, safer, easier on the type, and costs no more than papier-maché; also two engraving methods costing only $5 with materials, by which engraved plates are cast in stereo metal from drawings made on cardboard; "Ready-to-use" cold matrix sheets, $1. HENRY KAHRS, 240 E. 33d st., New York, N. Y.

ANYBODY CAN MAKE CUTS with my simple transferring and etching process; nice cuts from prints, drawings, photos are easily and quickly made by the unskilled on common sheet zinc; price of process, $1; all material costs, at any drug store, about 75 cents. Circulars and specimens for stamp. THOS. M. DAY, Box I, Windfall, Ind.

IF NOT USING A TYMPAN GAUGE SQUARE on your platen presses, you are cheating yourself; only 25 cents; all dealers.

INVESTMENT — Owing to the great catastrophe in San Francisco, a limited number of shares of stock in the Hoag Rapid Press Company can be purchased for $5 per share; see INLAND PRINTER for December; if you are interested write to the SPECIALTY PRINTING CO., 28 First st., San Francisco; if you are convinced send a draft on New York in favor of the Specialty Printing Co. to the Crocker-Woolworth Bank, San Francisco, and instruct them to pay it to the above company upon delivery of the stock; a small investment now may make you wealthy.

PRINTERS everywhere find the producing of imitation typewritten letters a most profitable side line. Ours is the leading circular letter firm in Chicago, printing millions of letters weekly on our platen and Harris presses. We make our own inks and typewriter ribbons, and guarantee perfect work in every way. Full instructions for operating the process furnished all users of our supplies. No apparatus of any kind required and no royalties.
Prices: Ink for circular letter printing, per lb., any color, black, blue, green, purple, brown or red, per lb.....$2.50
Typewriter ribbons exactly matching, per dozen..... 4.00
Special prices to large users.
M. M. ROTHSCHILD, Circular Letter Specialist, 96 Fifth ave., Chicago.

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OUR COLOR DESIGNS FOR PRINTERS' BLOTTERS are building business for those who use them. Only one shop in a town can get them. Write for samples and particulars. CHAS. L. STILES, Printers' Cuts, Live Stock Cuts, Poultry Cuts, COLUMBUS, OHIO



SPATULA CUT CATALOGUE (8th ed.). Thousands of beautiful and appropriate half-tone and line cuts for ads., booklets, etc. Over 100 pp., 9½ x 12½, 50c. (refunded on $2 order). **BEAUTY BOOK**—Full-page art pictures from photos of 60 of the most beautiful women in the world, 26c. Electros for sale. Both 70c. Stamps taken. SPATULA PUB. CO., 100 Sudbury Building, BOSTON, MASS.

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THE HENRY O. SHEPARD COMPANY
120-130 Sherman Street, CHICAGO



Taken entirely apart with the fingers in a few seconds.

WHAT task in the pressroom is more disagreeable, and looked upon with more disgust, and is more shirked, than the cleaning of the old style jobber fountain? And, no doubt, with good reason, too. It almost seems as if the machinists who built it not only did not understand the pressman's requirement, but either conspired to make it a difficult task or totally overlooked the fact that frequently it would be necessary to take it apart. Then when it has become so foul as to utterly refuse to work, it is attacked with screw-driver and monkey-wrench. After the washup comes the difficulty of readjusting, which, with jumping pawl and changing impression, is no trifling matter either. Fortunate, indeed, if the jobber is not kept out of commission for several hours.

NOT SO WITH THE NEW CENTURY. The whole operation of taking apart and cleaning and putting together again (and that without wrench or screw-driver) under no circumstances need exceed five minutes. And, after putting together, there is absolutely no readjusting, as the adjustment has not been disturbed in the cleaning. It is ready for operation the instant the washup is completed. MORAL: Make money by equipping your jobbers with the NEW CENTURY.

FOR ALL SIZES CHANDLER & PRICE, CHALLENGE, AND ALL GORDON PRESSES.

Get a descriptive circular from your dealer or from us. Always specify your presses.

The WAGNER MFG. CO., Scranton, Pa.

I AM pleased with the fountain. In the matter of taking apart and cleaning it is 'way ahead of them all. W. C. GRISWOLD, Centerbrook, Conn.

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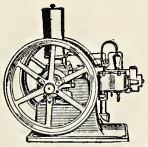
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Marine, 1 to 100 H.-P. Stationary, 1 to 70 H.-P.

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References: THE INLAND PRINTER CO., Chicago; HILL & HILL, Patent Attorneys and Mechanical and Electrical Engineers, Monadnock Building, Chicago; R. B. MACINTOSH & CO., Mechanical and Consulting Engineers, 130 Sherman Street, Chicago; W. H. SCHUYLER, Expert Machinist, 139 Lafin Street, Chicago.

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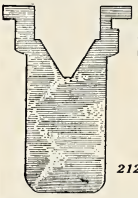
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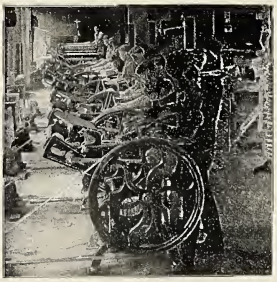
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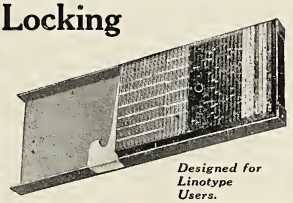
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There is no reason in the world why this galley should not be used exclusively in every printing-office. It outlives all other galleys, and is practically indestructible.

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A self-locking device holds the type firmly.
Sample set with lockup complete for 35 cents.

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337 Dearborn Street

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By October 1st the printing business of New York will be booming, and present indications point to the biggest printing year New York has ever seen.

We want, on or before October 1st, *first-class job compositors, proof-readers, machine operators, makers-up, stone hands and correctors,* to work in *open shops, 9 hours a day, 54 hours a week.*

We will pay the highest wages to competent, reliable men; a few two-thirders, ambitious to perfect themselves in the trade, will be given unusual opportunities.

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Bates Advertising Co., 15 Spruce Street
L. H. Biglow & Co., 62 Broad Street
Isaac H. Blanchard Co., 268 Canal Street
H. K. Brewer & Co., 88 Gold Street
Brown, Lent & Pett, 33 Maiden Lane
Burr Printing House, 18 Jacob Street
Corlies, Macy & Co., 441 Pearl Street
A. T. De LaMare Printing & Publishing Co., 2 Duane Street
Theo. L. DeVinne & Co., 12 Lafayette Place
Doubleday, Page & Co., 133 East Sixteenth Street
Eaton & Mains, 150 Fifth Avenue
Gilliss Press, 141 East Twenty-fifth Street
Grannis Press, 114 West Thirty-second Street
Wm. Green, 326 Pearl Street
Hill Publishing Co., 497 Pearl Street
Thomas Humphrey, 368 Canal Street
A. H. Kellogg, 411 Pearl Street
The Knickerbocker Press, 27 West Twenty-third Street
L. Middleditch Co., 65 Duane Street
S. S. McClure Co., 44 East Twenty-third Street
Willis McDonald & Co., 33 Gold Street
Palmer & Oliver, 64 Fulton Street
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The Geo. A. Powers Printing Co., 185 Sixth Avenue
Publishers' Printing Co., 32 Lafayette Place
John C. Rankin Co., 54 Dey Street
James A. Rogers, 85 John Street
Rogers & Co., 15 Murray Street
Sackett & Wilhelms Lithographing & Printing Co., Grand St. and Morgan Ave., Brooklyn
South Publishing Co., 195 Fulton Street
Stettiner Brothers, 52 Duane Street
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Styles & Cash, 135 West Fourteenth Street
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MONOTYPE CONTESTS

THE MONOTYPE PRIZE CONTEST is bringing to our office a flood of remarkable examples of printing which disclose splendid records of speed, scope and profit-making.

If it were possible to lay this showing before every printer of the United States, the composing-machine problem once and for all would undoubtedly be solved in favor of the Monotype, for no composing-machine has the range and scope of the Monotype, nor can any other equal it in speed or convenience on all classes of work. And it long since has passed beyond the need for further proving that in the making of money in the general printing-office no other machine can compete with it.

AWARDS FOR JULY



J. H. FAUTECK



JAMES PYLE



G. F. COATES

SPEED CONTEST

Class A—Speed prize awarded to J. H. Fauteck, Keyboard Operator; James Pyle, Caster Operator; G. F. Coates, Foreman—of the "Commercial and Financial Chronicle," of New York City.

The work of this keyboard operator is especially deserving of praise in that the composition, although practically all solid figure and tabular work, containing technical signs, did not have half a dozen errors in the first proof. The composition amounted to 9,729 ems, measured single; measured double it amounted to 19,458 ems. The keyboard time on the entire job was three hours. It required one hour and fifty minutes to cast the work, and twenty minutes to put in the brass rule. The keyboard rate was 6,486 ems per hour, measuring double price; and, considering the extremely intricate nature of the work, it is certainly a splendid showing.

The caster time was 5,304 ems per hour, measured single, or 10,608, measured double.

Following is a letter from the foreman in charge, which shows that this was not set expressly for the Speed Contest, but was done in the regular run of work:

> WOOD & NATHAN CO., New York City:
>
> *Gentlemen,*—I would like to say in regard to the proofs submitted by Messrs. Fauteck and Pyle that the matter of submitting them in your contest was not thought of until the following day, when the contest matter was being discussed among the men; then the time was taken from our records, and is correct as submitted.
>
> G. F. COATES, Foreman,
> "Financial Chronicle."



ERNEST J. WASHBURN



J. ARTHUR BREAU



B. C. PARKER

PROFIT CONTEST

Class B—

The Profit Prize has been divided, one part of the prize going to Detroit and the other to Hartford, Conn. The Caster Prize is won by E. J. Washburn, of the Travelers Printing Works, of Hartford, Conn., and shows a very large percentage of profit. The job consists of 576 running inches of 18-point border, or 2,304 pieces. This was cast in two and one-quarter

MONOTYPE CONTESTS

hours. The cost, not counting the metal, amounted to about $1.25. As the metal was recast after using, its use need not be considered in the calculation. This border would have cost, had it been purchased from a typefounder, $19.33, the difference being $18.08, showing a net profit of about 1,446 per cent. The foreman in the Traveler plant (Mr. J. Arthur Breau) received the Foreman's Prize. The Keyboard Profit Prize is awarded to Mr. B. C. Parker, of Detroit, who turned out a most intricate piece of work, from which he secured the following profit:

Total number of ems for seven pages	40,362
Time on keyboards	14¼ hours
Time on caster	10½ hours
Cost of production	$14.25
Invoiced at	32.24
Profit	17.99



MISS MARY F. SCOTT



MISS WILLETTE T. WOOD



REUBEN HILT



H. E. BURNETT

SCOPE CONTEST

Class C—

The Scope Prize has been awarded in the office of Mitchell & Hotchkiss, of Richmond, Va.— the Keyboard Prize being divided between Miss Mary Scott and Miss Willette Wood, the Caster Prize going to Reuben Hilt, and the Foreman Prize to H. E. Burnett. This specimen consists of a variety of very intricate tariff and blank work, which must be seen to be appreciated.

All work for which prizes are awarded is on file at our office, and we shall be happy to show it to those who will take the trouble to call.

Send in your work, for, as above said, no man need be ashamed to appear on the roll of honor which will follow in the wake of this remarkable undertaking, and it is safe to say that in every printery of the land, and in those of Europe as well, his name will be known, his face familiar, and his record firmly established.

And we repeat, if a wise hint were to be given those who have not Monotypes it would contain a suggestion that they purchase at once, and thereby gain the unprecedented advantages which are enjoyed by the fortunate owners of those machines.

The operators of Monotype machines and their foremen who wish to participate, and have not already entered the contests, should do so at once. "Monotypit," our official organ, will be sent free upon application to all who wish to keep in touch with the contest and with the latest progress in matters pertaining to machine-composition.

THE MONOTYPE

No. 1 Madison Avenue, New York

WOOD & NATHAN CO., SOLE SELLING AGENTS

OUR CUTS TALK



FOR months and months we have been diligently and persistently trying to impress you with the fact that

OUR CUTS TALK

Our customers are legion, inasmuch as all our cuts are imbued with that indescribable ***something*** that puts life.....snap.....go.....into the subject illustrated.

If you are numbered among our customers, we feel sure ***you will remain so.***

If you are not.....***you should be*** to our mutual benefit.

The
Williamson-Haffner
Company

DESIGNERS : : : : : ENGRAVERS

The United States Colortype Co.
GENERAL PRINTERS

(All under one management)

Denver, Colorado

Imitation Typewritten Letters

Printed by our process — match perfectly when filled in.

ANY PRINTER CAN SUCCESSFULLY PRINT THEM

We work with the printer— We furnish Inks and Typewriter Ribbons, an Instruction Book for using our process, and all information required to install the most profitable department in the printing business.

One Columbus, Ohio, printer wrote: "We like your inks and ribbons ever so much better than anything we have ever had. We have had poor success with—&—&—goods. Please send us two more instruction books."

We have helped hundreds of printers to more success — more customers — more profit. WE CAN HELP YOU.

Inks in any color—Purple, Blue, Black, Green, Red or Brown. Typewriter Ribbons for any machine, exactly matching.
WRITE FOR OUR SPECIAL TRIAL PROPOSITION.
Our Metallic Lustre Ink, something new, imitates a lead-pencil exactly.
Send for sample Van-Sen Typewriter Carbon Paper.

TYPERIBBON MANUFACTURING COMPANY

H. M. VAN HOESEN, President and Treasurer.

114-116 Sherman Street, CHICAGO, ILL.

Talk is Cheap!

Our goods talk, but the price is always right.

Calendar Pads for 1907

are now ready. Send for Sample-Book.

Stock Certificate Blanks always on hand.

Monasch Lithographing Co.
500-512 South Fifth Street,
MINNEAPOLIS, MINN.

OUR STOCK INCLUDES

Complete outfits of Machinery, Type, Wood Goods and Supplies.
Paper ranging from cheap poster to fancy grades costing a hundred dollars a ream.
Cardboard and Cut Cards of all qualities.

THE

Department Store for Printers!



UNIVERSAL PASTING MACHINE a specialty this month.
Pastes labels for packages and dozens of other purposes.
Always ready for work. It fills a long-felt want.

5 inches wide,	hand power, ...	$10.00
5 "	" for edge pasting, . .	12.50
12 "	" belt and hand power,	35.00

Chas. Beck Paper Co., Ltd.
609 CHESTNUT STREET, PHILADELPHIA, PA.

MODERN CASLON.

4 A, 7 a $5.00 — 36 Point — L. C. $2.35, C. $2.65

REPUBLICAN Newspapers 123

5 A, 9 a $4.25 — 30 Point — L. C. $2.00, C. $2.25

CONSTITUTION United States, 45678

5 A, 12 a $3.50 — 24 Point — L. C. $1.85, C. $1.65

HISTORICAL FACTS! By Prominent Men, $10.

8 A, 16 a $3.25 — 18 Point — L. C. $1.70, C. $1.55

A GOOD FACE TO HAVE, 12 Original in Design—Order Now

12 A, 24 a $3.00 — 14 Point — L. C. $1.55, C. $1.45

IMPERIAL PALACES OF THE KING! Beautiful Galleries, Gorgeous Splendor, 10

15 A, 30 a $2.75 — 12 Point — L. C. $1.45, C. $1.30

THE INVENTION OF PRINTING HAS BEEN Recognized by Educated Men as a Subject of—12

16 A, 32 a $2.50 — 10 Point — L. C. $1.25, C. $1.25

ALL FAMOUS FRENCH AND GERMAN AUTHORS Contribute writings on international questions to this—12

21 A, 42 a $2.25 — 8 Point — L. C. $1.15, C. $1.10

ILLUSTRATIONS BY THE MOST CELEBRATED DESIGNERS And writings by the foremost authors make Magazine a most desirable

24 A, 48 a $2.00 — 6 Point — L. C. $0.95, C. $1.05

THE INVENTION OF PRINTING HAS ALWAYS BEEN RECOGNIZED BY Educated men as a subject of great importance; there is no mechanical art, nor are

☞Sold at Roman Rates from 6 to 18 point in fonts of 20 lbs. or more.☜

CENTURY ROMAN.

6 Point.

All our type is cast on Point Body, Point Line and Point Set, and is composed of a mixture of metal that is guaranteed to be equal to the best, and will wear better than most of the type now on the market. All faces are cut deep, thereby preserving the sharp lines and clear impression necessary to the execution of first-class work.

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All of our type is cast on Point Body, Point Line and Point Set, and is composed of a mixture of metal that is guaranteed to be equal to the best, and will wear better than most type on the market. All faces are cut deep, thereby preserving the sharp lines and clear im-

10 Point.

All our type is cast on Point Body, Point Line and Point Set, and is composed of a mixture of metal that is guaranteed to be equal to the best, and will wear better than most type now on the market. All faces are

12 Point.

All our type is cast on Point Body, Point Line and Point Set, and is composed of a mixture of metal that is guaranteed to be equal to the best, and will wear better than most of the type now on the market. All faces are cut deep, there-

¶These series of type are the first produced by this Foundry and are guaranteed to be equal to the highest standard of material and workmanship. ¶New faces in course of preparation will be shown as rapidly as possible. We also manufacture Brass Rule, Leads, Slugs, Metal Furniture and Brass Galleys. ¶We are the only first-class type foundry independent of the Trust.

All type sold at **15 % Disc't.**

Western Type Foundry,

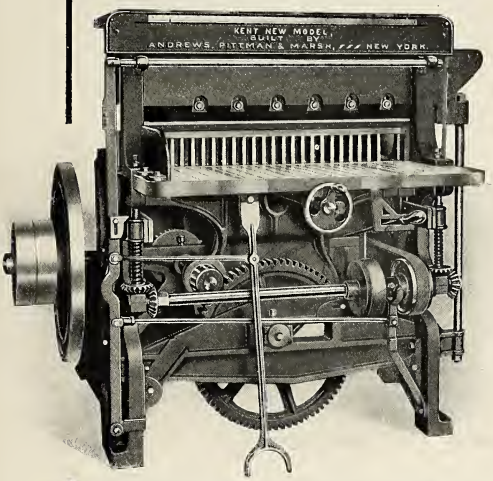
114 Sherman Street, CHICAGO.

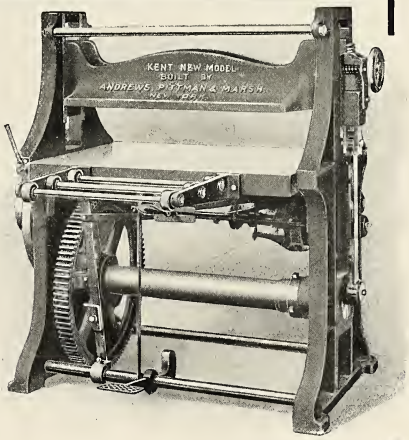
108 Pine Street, ST. LOUIS.

"The Machines that have made good for 30 years and are still the leaders"

NEW MODEL

Kent Power Paper Cutters and Die Presses





Machinery that is an assured success for reliability and economy in operation is a safe investment.

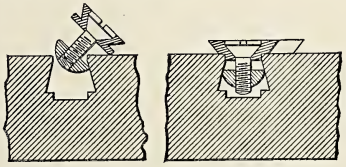
Do not experiment. Claims of superiority are easily made.

We can substantiate all claims made for the Kent Power Paper Cutters and Die Cutting Press by records established during the past thirty years. ¶ QUALITY—ACCURACY—EFFICIENCY mean something to you if you are about to place an order for goods in our line.

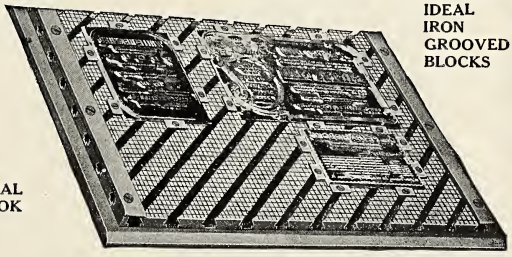
Place your orders for KENT PAPER CUTTERS AND DIE PRESSES now for Fall deliveries.

Ideal Iron Grooved Blocks and Tip-in Hooks

The "Ideal Hooks" possess advantages over any similar device ever placed on the market. ***They are the only hooks that the user can insert or remove from the groove without disassembling,*** thereby enabling the "make-up" man to change plates or register in the shortest possible time.



IDEAL HOOK



IDEAL IRON GROOVED BLOCKS

WRITE FOR DESCRIPTIVE MATTER AND TESTIMONIALS

ANDREWS, PITTMAN & MARSH

286 GREENWICH STREET, NEW YORK



Send for
"POINTS OF PRACTICAL VALUE."
It will cost you only a postal card.

"There is as much difference between a well-oiled machine and an ill-oiled machine as between a good one and a bad one."

— From "POINTS OF PRACTICAL VALUE."

How many operators are there who think the proper way to oil a machine is to pour oil down the pedestal and onto the floor? We think their name is legion, in fact, a properly oiled machine is a rare bird—so rare that we feel justified in going over the old ground once more.

The reason for oiling a machine is to keep the wearing surfaces from cutting and sticking, and it is on these surfaces that there should *always* be a thin film of good, clean oil. Anywhere else about the machine (except, of course, in the oilways and receptacles) oil is simply *dirt and waste.*

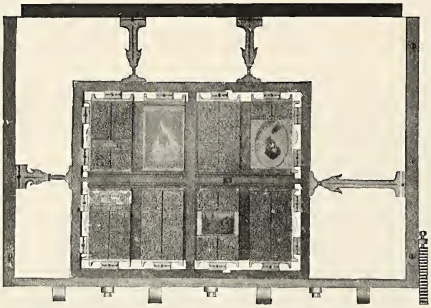
The proper lubrication is so simple, yet so vital, a matter that it is a constant marvel to us that it should be so often neglected. Remember this: It is the drop on the right spot at the right time that does the work, not the spilled bucketful that musses up the premises.

JOHN ROYLE & SONS

PATERSON, N. J., U. S. A.

Here are the latest and best Lock-ups—

EXPANSION LOCKS, MORTON LOCK-UPS
IN CONNECTION WITH
WICKERSHAM QUOINS 2,000,000 IN USE



Cut shows **Expansion Locks,** against iron, as chase-lock on bed of press. Secure, no blocks; no lost time. 4 sizes, expand 4¾ to 34¾ ins.
Also **Morton Lock-ups,** against type-metal and iron, as side and foot locks in book form. 41 lengths; all book and job measures; all sidesticks.
Send for latest booklet of Modern Locking Devices, in great variety, including latest **Wickersham Quoins,** for all composing-room and pressroom uses; also Good Opinions and prices.

WICKERSHAM QUOIN CO., BOSTON, U. S. A.

AGENCIES { AMERICA—Leading Dealers in Type and Printing Materials.
GREAT BRITAIN—Caslon Letter Foundry, London.
AUSTRALIA—Alex. Cowan & Sons, Melbourne and Sydney.
SOUTH AFRICA—John Dickinson & Co., Cape Town.

Bausch & Lomb Photo Engraver's Lenses and Prisms

Bausch & Lomb-Zeiss Apochromatic Tessar

has been specially computed for 3-color work, and makes possible the production of 3-color plates with the least possible delay and trouble.

Accurate corrections.

Perfect register.

Used by the foremost 3-color process-workers in the country

Bausch & Lomb Optical Co.

ROCHESTER, N. Y.

NEW YORK BOSTON WASHINGTON
CHICAGO SAN FRANCISCO

THIS is the time of the year when you want to spruce up your office by adding new type. One or two series will help you hold your old customers and gain new trade.

Why not please your workmen, your customers, and yourself by adding the Webb Series in which this advertisement is set?

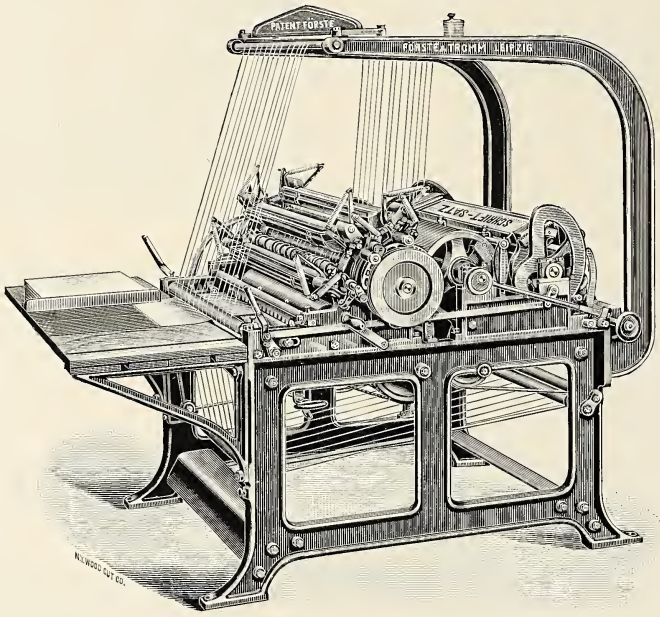
Its companion face the **Foster** ---the dark letter---is cut a shade smaller so that the Webb will register over it without showing an ugly margin. If you have not a copy, send **to-day** for a pamphlet showing both series in plain and colored work. If nothing else it will give you new ideas in regard to composition.

INLAND TYPE FOUNDRY

CHICAGO SAINT LOUIS NEW YORK

Disc Ruling Machines

100% MORE PRODUCT THAN CAN BE OBTAINED FROM PEN MACHINES



COMBINED DISC RULING AND PRINTING MACHINE

THE machines are also built without the printing attachment, to rule on both sides of the sheet with four colors or stop heads on each side.

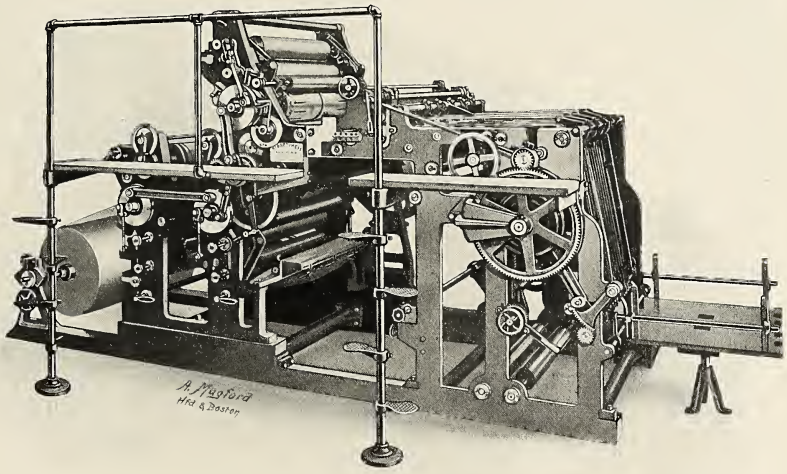
Recent purchasers of these Disc Ruling Machines:

PERLEY & BRO. - - - Pittsburg, Pa.
BAKER-VAWTER CO. - - Chicago, Ill.
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GIBBS-BROWER CO., Sole Agents

150 NASSAU STREET, NEW YORK

KIDDER PRESS CO.

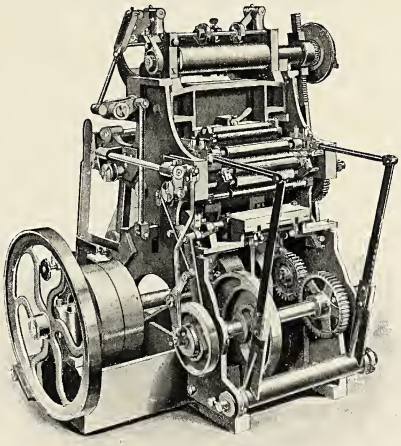


ROTARY PRINTING TWO COLORS ON ONE SIDE AND ONE ON THE OTHER

Straight and Adjustable Rotaries of all sizes and styles

Ticket and
Label Presses
of all kinds

Product flat or
can give you
hard, smooth
rolls...



GIBBS-
BROWER
CO.

SOLE AGENTS

150 Nassau Street

NEW YORK

5 x 9 PRESS. SPEED, 8,000 IMPRESSIONS PER HOUR

STAR PRINTING INK WORKS

Star Black

The best all-round Book and Cut Ink on the market to-day. Made in three grades—Regular, Long and Q. D., all the same high quality.

Use the Star Brand of Printing Inks.

Red Star Label.

F. A. BARNARD & SON
349 Dearborn Street, Chicago, Ill.

Champlin Type & Machinery Company

Successors to : : : : Champlin & Smith

Phone... 1212 Harrison

Same Lines -- 121 Plymouth Court, Chicago -- Same Location

Keystone Type
Golding Machinery
Brown Folding Machines
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Patent Combination Chases
American Press Seats

All Printers' Necessities

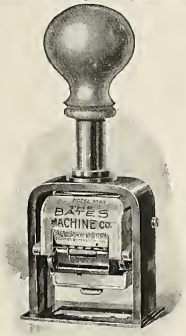
Since the San Francisco fire we have shipped thousands of pieces of our Combination Chase for the re-equipment of offices there. Isn't it worth while to look into the matter? They are labor-savers!

We shall shortly be able to take better care of you on Keystone Type than ever. Larger stock. Complete line of sorts.

Our customers say we give better service than they get elsewhere

Champlin Type & Machinery Company

Model No. 49. High Grade, Low Price.



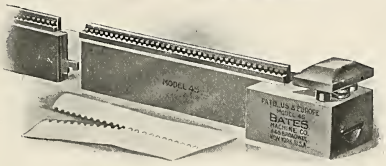
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FAC SIMILE IMPRESSION

Patented U. S. and Europe.

Price $5. Consecutive, Duplicate, Repeat.

Model No. 45. Perforating Machine.



Perforates While You Print.

The

Bates Machine Company

Makers of

High-Grade Numbering Machines

346 Broadway, New York. 315 Dearborn St., Chicago.

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Special Numbering Devices of All Kinds Made to Order.

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Price $15 Consecutive, Duplicate, Repeat.

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FAC SIMILE IMPRESSION

The Size—1 1-2 x 15-16 in.

WHERE THEY ARE MADE.



Works: Brooklyn, N. Y., U. S. A.
The Largest Plant in the World Devoted to the Manufacture of High-Grade Numbering and Dating Machines.

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INK

FOR EVERY PURPOSE

Letterpress Inks
Lithographic Inks
Copper Plate Inks
Steel Plate Inks
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Cover Inks
Chromatic Inks
Transfer Inks
Celluloid Inks
Etching Inks



Embossing Inks
English White Lake
Lacquers
Bronze Powders
Varnishes
Driers
Gloss Paste

And, in fact, any and every thing of the very best relating to the

Art of Printing

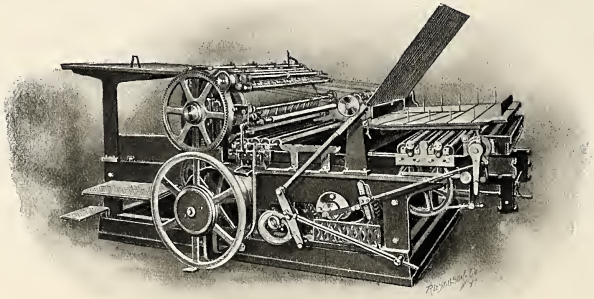
Buffalo Printing Ink Works

BUFFALO, NEW YORK

Generalship

THE wise general takes advantage of a lull in hostilities to plan his campaign, get his army in the best fighting trim, and see that their equipment is complete in every detail.

The wise printer improves the quiet summer months in preparing to handle the increase of business which will come in the fall.



The Whitlock Press

Should not be overlooked when considering additions to your pressroom equipment. Don't let work which rightfully belongs to you go to your competitor because your pressroom can not handle it. Get a Whitlock — there are many reasons why it is the press you should have.

Full particulars on request. Write ***now.***

Agencies covering America and Europe:

Western Agents
AMERICAN TYPE FOUNDERS CO.,
Chicago, St. Louis, Cleveland, Cincinnati, Minneapolis, Kansas City, Denver, Los Angeles, San Francisco.

Southern Agents:
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European Agents:
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10 Johnson's Court, Fleet St., London, E.C.

FOR CIRCULARS, PRICES, ETC., WRITE

THE WHITLOCK PRINTING PRESS MFG. CO., *of* Derby, Conn.

AT THE SALES OFFICES BELOW:

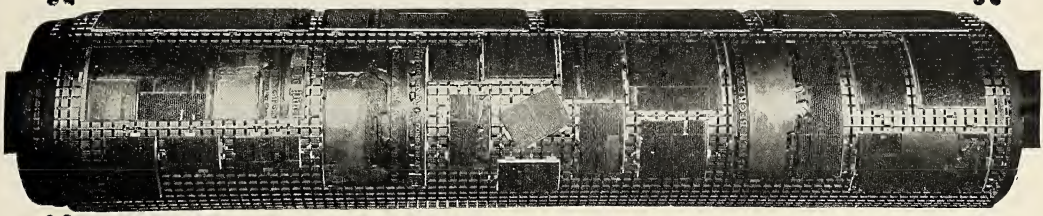
Fuller (Flatiron) Bldg., 23d St. and Broadway, NEW YORK
510 Weld Bldg., 176 Federal St., BOSTON, MASS.

WHY tarry on the purchase of

The "Unique" Block

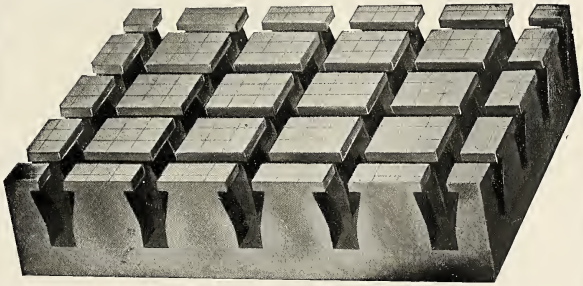
(MADE OF STEEL ABSOLUTELY)

Proved to be a wonderful adjunct in the preservation of the art of all arts!



Embodies the only absolutely perfect principles of a plate-locking device for Letterpress Printing on FLAT-BED OR ROTARY PRESSES.

Can be used on "small runs" to the greatest advantage as the plates are quickly changed



Actual size of smallest section—2⅔x3⅓ or 16x20 picas

For color work requiring hair-line register, its value is at once apparent to the intelligent pressman



Narrow Margin Clamp

Of this "Unique" over 10,000 large sections and 120,000 clamps are already in use in the best printing offices in the United States.



Regular Clamp

The "Unique" Block possesses manifold advantages for any and all kinds of plate printing.

Our system of BLOCKS consists of four standard-size sections; 8x10, 2⅔x10, 3⅓x8 and 2⅔x3⅓ inches, by means of which any size bed can be filled in two minutes, then the CLAMPS dropped in AND locked up with the common RATCHET. Other sizes of sections cut to order.

An equipment of "Unique" Blocks will more than pay for itself in a short time, for it is the greatest time-saver in the pressroom.

New Clamp for Label Work

Is the latest addition of improvement. Plates can be locked on the "Unique" Rockstroh Block with margins of hair-space all around every plate. Write for special information on this point.

Send for Pamphlets, Price Lists, Etc.

ROCKSTROH MANUFACTURING CO.

ATLANTIC AVENUE AND CHESTNUT STREET, BROOKLYN, N. Y., U. S. A.

CHICAGO OFFICE, 396 South Clark Street—*W. G. LOOMIS, Manager*
PHILADELPHIA OFFICE, 624-626 Filbert Street

BOSTON, MASS.
Represented by RICHARD PRESTON, 167 Oliver Street

SAN FRANCISCO
Represented by EVE E. CARRERAS, 327 Sansome Street

Peerless Electric Co.

122-124 S. Green Street, Chicago

TELEPHONE, MONROE 1362

Headquarters for

Direct Current Motors

High-grade Electrical Repairing and Construction

PRICES REASONABLE & GIVE US A TRIAL

Are you still in the wilderness patching on Gauges?

Megill's Double-Grip Gauge





Can be fastened with the fingers, but key and pierced nuts are now furnished, and no extra charge.

Screws right on to the tympan and not through it. Saves the tympan instead of destroying it. Allows form to be printed directly over the spot where it was previously fastened. Any degree of adjustment. Absolute hold without glue or pin-points. Sheets can not feed under gauge head.

Send for description of Megill's Gripper Fingers, Gripper Cross-bars and Automatic Machines for setting sheets to perfect register on the job press.

E. L. MEGILL, Mfr., 60 Duane Street. NEW YORK

Cover and Book Papers



TRADE-MARK

JAMES WHITE & CO.

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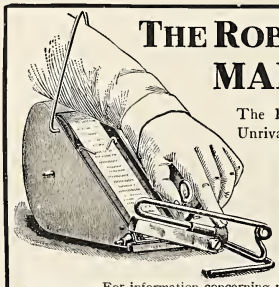
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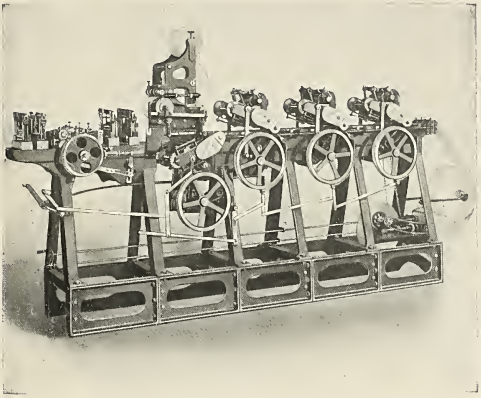
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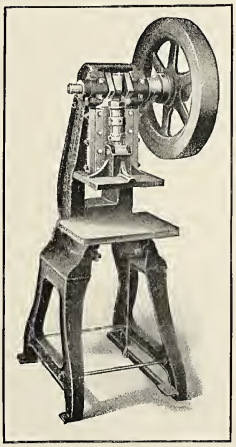
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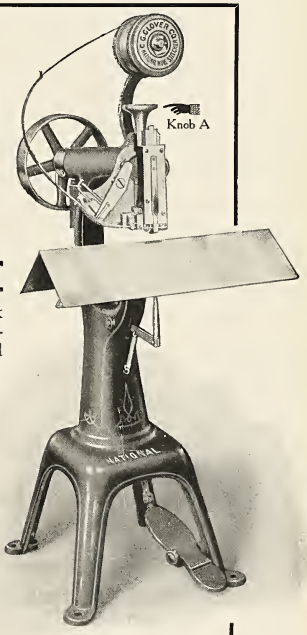
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READING, PA.

December 27, 1905.

THE TUBBS MANUFACTURING CO., Ludington, Mich.:

Gentlemen,—We have a quantity of your Corbitt Condensed Wood Type and wish to say that it is the most accurate type we have ever used.

EDWARD PENGELLY & BROTHER.

LEVEY BROTHERS & COMPANY,
INDIANAPOLIS, IND.

JNO. I. CALDWELL, Oakland, Cal.: July 12, 1906.

Dear Sir,— In refitting our composing-room on completion of our new building in State House square, we were very careful to examine all the different makes of wood goods, furniture, etc., after which we placed our order complete with the Tubbs Manufacturing Co. We have kept close tab on their material and find it stands the test of time in every respect.

We believe the Tubbs people are making just as good material as any other house in the United States and are selling at just as low prices. What more could a purchaser ask?

Yours respectfully, LEVEY BROTHERS & COMPANY.

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Designers and Makers of Good Printing,
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Per S. P. FORD.

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High-class Type and Block Posters,
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Yours very truly,

SOUTH BEND POSTER PRINTING CO.

THE ARCHER PRINTING COMPANY,
Printers, Catalogue Makers, Engravers, Electrotypers,
FORT WAYNE, IND.

June 13, 1906.

THE TUBBS MFG. CO., Ludington, Mich.:

Gentlemen,— Your representative when here sold us an order of your rubber-faced furniture. We had considerable trouble with the quads and spaces working up in the type forms that were set on the Monotype machine, and we find that the rubber-faced furniture has the tendency to keep the quads and spaces intact, and it has saved us considerable inconvenience and expense.

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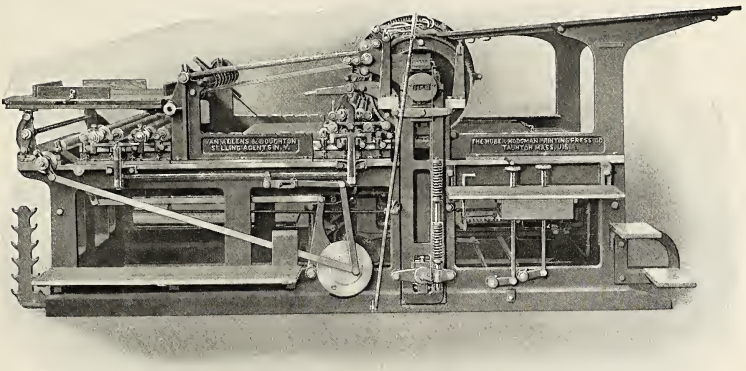
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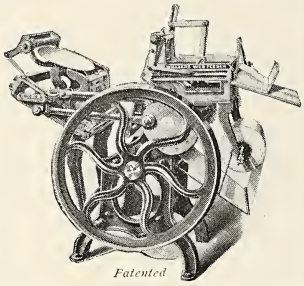
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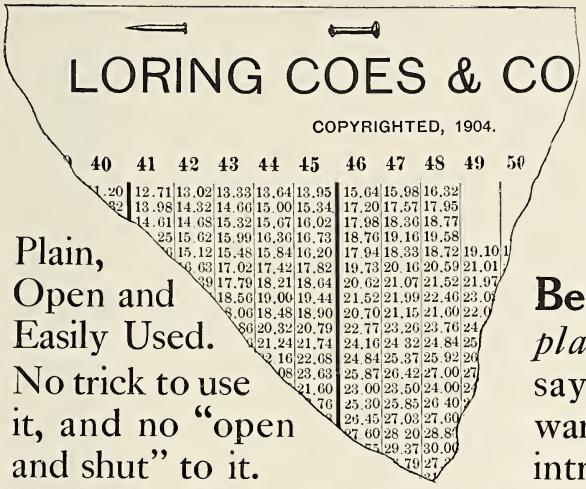
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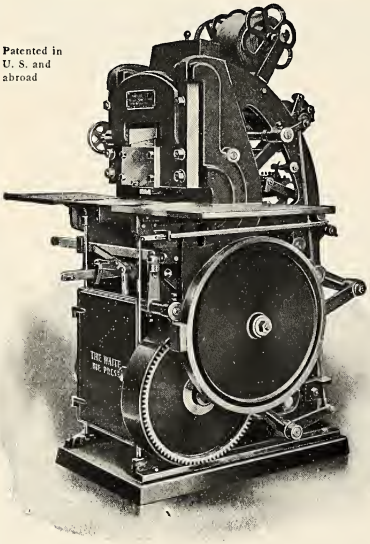
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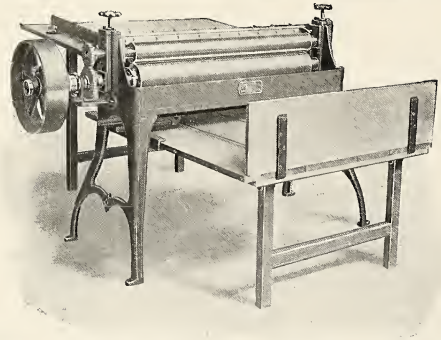
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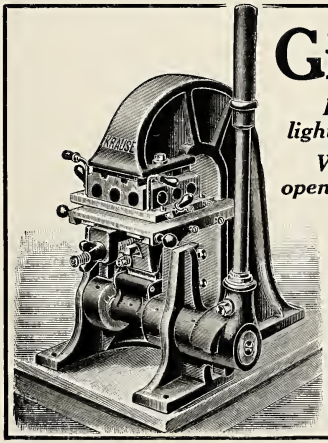
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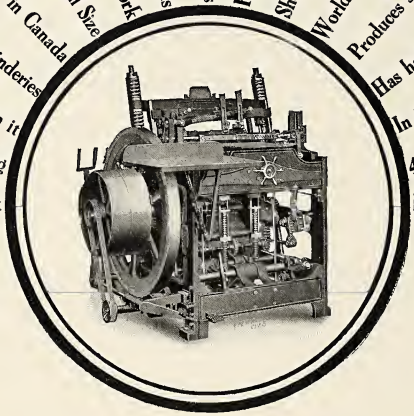
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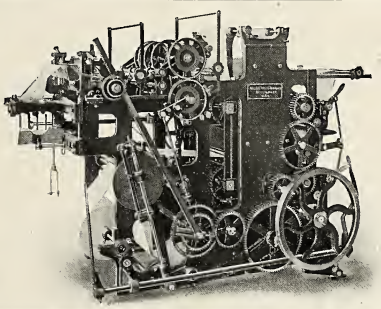


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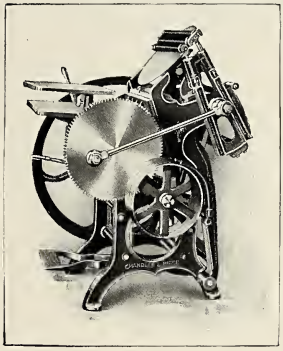
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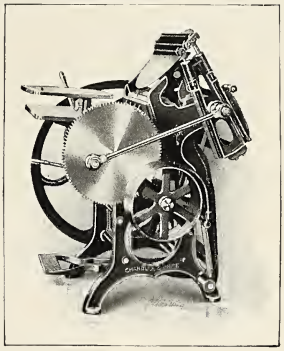
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FROM DATE OF THE BEGINNING OF BUSINESS UP TO JULY 31, 1906





FOR YEAR ENDING JULY 31

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1888—367 GORDONS
1889—413 GORDONS
1890—610 GORDONS
1891 — 652 GORDONS
1892 — 657 GORDONS
1893 — 732 GORDONS
1894 — 743 GORDONS
1895 — 1,143 GORDONS
1896 — 1,375 GORDONS
1897 — 1,086 GORDONS
1898 — 1,589 GORDONS
1899 — 1,707 GORDONS
1900 — 1,763 GORDONS
1901 — 1,634 GORDONS
1902 — 2,130 GORDONS
1903 — 2,358 GORDONS
1904 — 2,282 GORDONS
1905 — 2,393 GORDONS
1906 — 3,002 GORDONS

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THE ONLY OFFICIAL PAPER OF EMPLOYING PRINTERS AND PUBLISHERS IN AMERICA

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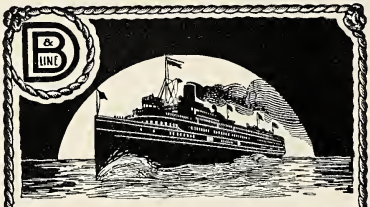
Right here is an advertising point that many an advertiser overlooks. A trade paper, for instance, may have a great number of subscribers and only a few READERS. They look at the pictures and lay it aside "to keep." How much more successful is the advertising medium which compels attention, whose every page is greedily devoured—ads and all!

Circulates all over the world. A subscriber says: "Every printer and publisher with brains should take it."

And every advertiser who wishes to secure the attention of printers and publishers should know of its sterling advertising qualities.

SEND 20c FOR A SAMPLE COPY

National Printer-Journalist
Main Office: 1317-1319 Ravenswood Park, Chicago, Ill.



Across Lake Erie
BETWEEN
TWILIGHT AND DAWN

The D. & B. Line Steamers leave Detroit weekdays at 5:00 p. m., Sundays at 4:00 p. m. (central time) and from Buffalo daily at 5:30 p. m. (eastern time) reaching their destination the next morning. Direct connections with early morning trains. Superior service and lowest rates between eastern and western states.

Rail Tickets Available on Steamers

All classes of tickets sold reading via Michigan Central, Wabash and Grand Trunk railways between Detroit and Buffalo in either direction will be accepted for transportation on D. & B. Line Steamers.

Send two cent stamp for illustrated pamphlet. Address, A. A. Schantz, G. S. & P. T. M., Detroit, Mich.

DETROIT & BUFFALO STEAMBOAT CO.

$33
TO THE
PACIFIC COAST

Second-class one-way colonist tickets will be on sale via the Chicago, Union Pacific & North-Western Line to various points in California, Oregon and Washington, every day from September 15th to October 31st, inclusive.

Daily and Personally Conducted Excursions in Pullman Tourist sleeping cars, through to San Francisco, Los Angeles and Portland without change, in charge of experienced conductors whose entire time is devoted to the comfort of passengers. The cost of a double berth, accommodating two people if desired, is only $7.00 from Chicago to the Coast.

Full particulars concerning these excursions can be secured by addressing S. A. Hutchison, Manager Tourist Department, 212 Clark Street, Chicago, Ill.

$62.50 CALIFORNIA
AND RETURN

This special low rate Chicago to San Francisco and Los Angeles is for strictly first-class round-trip tickets on sale daily September 3 to 14. Return limit October 31st.

$75.00 round trip to San Francisco, Los Angeles, San Diego, Portland and Puget Sound points, daily to September 15th. Return limit October 31st.

Round-trip tickets are good for passage on the electric lighted Overland Limited, electric lighted Los Angeles Limited and China and Japan Fast Mail, all through to the coast without change.

THE NORTH-WESTERN LINE
UNION PACIFIC
OVERLAND ROUTE

The Best of Everything

All agents sell tickets via this line.

W. B. KNISKERN, P.T.M.
Chicago & North-Western Ry.
PC47 CHICAGO, ILL.



NON-OFFSETTING

40-Cent Black

IS MANUFACTURED BY

F. E. OKIE COMPANY

PHILADELPHIA, PA.
U. S. A.

This is the most reliable ink on the market; more concentrated value to the square inch than any ink made. Our **25 and 30 Cent Inks** are also winners in their class—made on the same lines, possessing the same qualities as the 40-Cent Cut.

We are makers of the celebrated **Black Diamond News**—the cleanest news on the market. 6 cts. net, discounts in quantities.

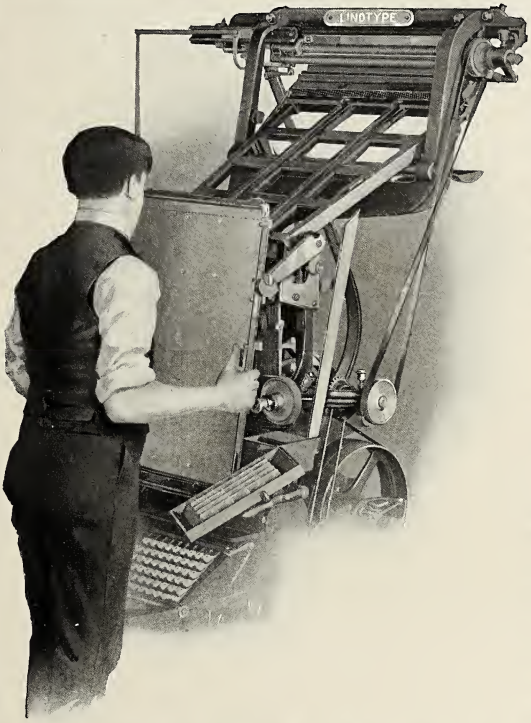
We aim to please our customers. Our prices are moderate and goods of the highest quality at all times

Brilliant Cover Reds *and* White that is White

Perfect-Working Job Inks
Dry Colors
Varnishes

Sole Agent for Great Britain and Ireland—W. H. BEERS, 170 Edmund Street, Birmingham, England

Linotype Speed



One man on one machine at a single operation sets **106,300 ems** corrected nonpareil in seven hours and fifty-two minutes.

During the night of July 1, 1906, Mr. C. A. Nichols, of the Salt Lake *Herald*, on a Linotype that has been in continuous use for over *thirteen years*, made the above record. To the printer, the figures as to speed must, without comment, speak volumes. But aside from the speed, think of the record for Linotype durability; add to this the quality of product that can be equaled only by new type, and you will know in a measure why there are to-day over 11,000 Linotypes in actual use.

Our new Model 5 Machine is now ready. A full explanation as to what it will do and its advantages can be had for a two-cent stamp.

MERGENTHALER LINOTYPE COMPANY

NEW YORK CHICAGO SAN FRANCISCO
NEW ORLEANS TORONTO PARIS

SYDNEY, Parsons Brothers
TOKIO, Teijiro Kurosawa

CAPETOWN, John Haddon & Co.
BUENOS AIRES, Louis L. Lomer

Special Research Laboratory—Problems of manufacture investigated; reports and opinions.
Analysis Instruments designed and their construction supervised. Special tests.
Mechanical-Electrical Examinations made. Practical shop experience enables me to correctly design, supervise and test out all kinds of devices.
Expert Opinions on the practicability of ideas, patentability, scope of claims, operativeness, cost of construction, etc.

After a number of years' residence abroad, I have personally selected correspondents in London, Paris and Berlin.
Member of the Royal Photographic Society and Society of Arts, London.
Associate member, American Institute of Electrical Engineers, New York.

N. S. AMSTUTZ,
Phone, Harrison 4220 — **130 Sherman St., Chicago, Ill.**

DISPLACES BENZINE

Non-explosive, More Economical.
Used by U. S. Government and thousands of printers.
Reduces insurance rates nearly 25 per cent.
Preserves rollers. Devoid of gum or sediment.

TARCOLIN

TRADE-MARK.

Sole manufacturers of non-inflammable solvents and detergents for all purposes, under the following trade-marks: Anti-Benzine, Tarcolin, Rockolin, Alcolin, Dissolin and Pyronil. Write for booklet.

ADDRESS

Delete Chemical Co.
126 William St., New York

For Printing Imitation Typewritten or Form Letters of all kinds, we manufacture a fine line of Supplies, to be used in connection with our Typewriter Ribbons in filling in the name and address.

CARBON PAPERS

All kinds specially adapted for the Printing Trade, for all forms of Manifold Books.

MITTAG & VOLGER
Manufacturers for the Trade
PARK RIDGE . . . . . NEW JERSEY

WHITMORE MFG. CO.

HOLYOKE, MASS.

MANUFACTURE BEST GRADES OF

Surface Coated PAPERS AND CARD BOARD

Especially adapted for Lithographing and Three-color Work.

TELEPHONES { MAIN 2542 / AUTOMATIC 6541

Slade, Hipp & Meloy INC.
139 Lake St., Chicago

BOOKBINDERS' SUPPLIES
PAPER BOX MAKERS' SUPPLIES
EGG CASES AND FILLERS

Straw Boards — Auburn Cloth Board
W. O. Davey & Sons' Tar Board
Wood Pulp and Jute Board
"Diamond S" Cloth Board
Interlaken Mills Book Cloth
Imported and Domestic Glazed Papers

COPPER AND ZINC PLATES

MACHINE GROUND AND POLISHED

CELEBRATED SATIN FINISH BRAND

FOR PHOTO-ENGRAVING AND ETCHING

MANUFACTURED BY

THE AMERICAN STEEL & COPPER PLATE CO.

116 NASSAU STREET, NEW YORK, N. Y.

CARBON BLACK

MADE BY

GODFREY L. CABOT
BOSTON, MASS.

ECLIPSE. — DIAMOND.
ELF. — B. B. B. — BANNER.

If in a hurry, send your forms to the



ATLAS ELECTROTYPE COMPANY

We do electrotyping only, and give prompt service and best work. We can please you.

Out-of-town work solicited.

76 TO 82 SHERMAN ST., CHICAGO

L. Martenson & Co.

MACHINISTS

PRINTERS' and BOOKBINDERS' MACHINERY

A SPECIALTY

140 Monroe St., CHICAGO

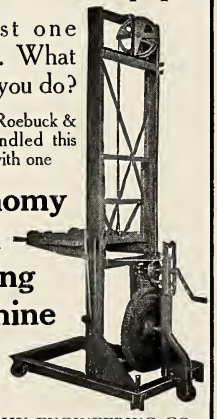
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200 carloads of paper

for just one catalog. What would you do?

Sears, Roebuck & Co. handled this stock with one

Economy Steel Tiering Machine



ECONOMY ENGINEERING CO.
58-64 N. Jefferson St., Chicago, Ill.
Foreign Agents: Parsons Bros., New York



The Black-Clawson Co.

HAMILTON, OHIO

BUILDERS OF IMPROVED

Paper and Pulp Mill Machinery

INK MILLS, PERFORATORS

Saturating and Drying Machinery, Plating Machines, Special Machinery, etc.

Write us for prices and further particulars.

Quality Metals

for printers are the kind BLATCHFORD makes — Linotype, Monotype, Stereotype, etc., etc.

E. W. Blatchford Co.
CHICAGO, U. S. A.
EASTERN OFFICE — 5 Beekman St., New York

Star Engravers' Supply Co.
TRADE MARK REGISTERED
GLOSSOID BRAND
POLISHED ZINC AND COPPER PLATES.
81-83 FULTON ST., NEW YORK CITY. U.S.A.

Acme Ink Reducer

is the *best* for Solid Cuts.

ACME INK REDUCER can be used in *any* kind of ink (no matter how stiff or "tacky" the ink may be) without injuring the most delicate color.

Prevents "Rubbing" of Solid Cuts

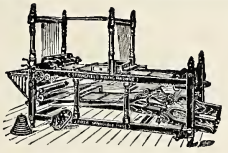
By using the *Acme Kind* in color inks, fine-line cuts can be produced as clean and sharp as with the best qualities of black or blue-black inks.

The ACME is indispensable for *all* kinds of printing.

TRY IT. SAMPLE FREE. POSTPAID.

ACME COMPOUND COMPANY, Elkhart, Ind.

The Springfield RULING MACHINE



MANUFACTURED BY
E. J. PIPER
44 HAMPDEN ST., SPRINGFIELD, MASS.

I CAN SELL

Your REAL ESTATE or BUSINESS NO MATTER WHERE LOCATED

Properties and Business of all kinds sold quickly for cash in all parts of the United States. Don't wait. Write to-day describing what you have to sell and give cash price on same.

IF YOU WANT TO BUY

any kind of Business or Real Estate anywhere at any price, write me your requirements. I can save you time and money.

DAVID P. TAFF
THE LAND MAN
415 Kansas Avenue, TOPEKA, KANSAS



Pike's Peak from the Garden of the Gods

TO COLORADO

In Glorious Autumn — Finest Season of the Year

A trip to and thro' the Rockies then is an experience you never can forget!

The air is bracing, but dry and clear; the canyons have a subtle charm, more impressive even than in summer. It is a memorable event in every tourists' life.

The Pikes Peak Centennial, to be held at Colorado Springs in September, is a special reason for making the trip *this autumn.*

Unusually low rates for round trips to Colorado Springs, Denver and Pueblo September 19, 20, 21 and 22, based on the following: from Chicago, St. Paul or Minneapolis $25; from Peoria $24.25; from St. Louis $21; from Omaha, Kansas City or St. Joseph $15. From all points rates are proportionately low.

Burlington Route

It will be a pleasure to inform you about the superiority of Burlington service to Colorado. Just send a postal to

P. S. EUSTIS
Colorado Dept. No. 5
209 Adams St., Chicago

P153

AMERICA'S MOST POPULAR RAILWAY
CHICAGO AND ALTON
PERFECT PASSENGER SERVICE

BETWEEN

CHICAGO AND KANSAS CITY,
CHICAGO AND ST. LOUIS,
CHICAGO AND PEORIA,
ST. LOUIS AND KANSAS CITY.

THROUGH PULLMAN SERVICE BETWEEN CHICAGO AND

HOT SPRINGS, Ark., DENVER, Colo.,
TEXAS, FLORIDA, UTAH,
CALIFORNIA AND OREGON.

IF YOU ARE CONTEMPLATING A TRIP, ANY PORTION OF WHICH CAN BE MADE OVER THE CHICAGO & ALTON, IT WILL PAY YOU TO WRITE TO THE UNDERSIGNED FOR RATES, MAPS, TIME-TABLES, ETC.

GEO. J. CHARLTON,
GENERAL PASSENGER AGENT,
CHICAGO, ILL.

MODERNIZING PRINTING PLANTS

The entire problem. Buildings and equipment complete

RECENT WORK

Snyder & Black Bldg. — McGraw Publishing Co.
Iron Age Building — Bartlett & Co.
J. J. Little & Co. — John C. Rankin Co.
William Steiner Sons & Co.

WALTER S. TIMMIS, *Consulting Engineer*
Member American Society of Mechanical Engineers
150 Nassau Street - - - - NEW YORK

THE INLAND PRINTER—SEPTEMBER, 1906.

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Williams Web Co	918
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Wire Loop Mfg. Co	895
Yates Bureau of Design	895

THE HENRY O. SHEPARD CO., 57 PRINTERS, CHICAGO.


THIS IS THE END
OF
THE INK BEASTS PARADE
SEE MY ENTRY
PURPLE No. 3309
RED --- No. 2904
BLACK - No. - 113
THE
QUEEN CITY
PRINTING INK
COMPANY
H·D·
BOOK
INK·



BRILLIANT BLUE, 406.

The Queen City Printing Ink Co.

Makers of High-Grade

PRINTING INKS

CINCINNATI • CHICAGO • BOSTON • PHILADELPHIA

THE VERY BEST

Twenty-five Cent
BOOK INK
on the market

BOXER BLACK

THIS is the opinion of a large number of the best printers in the United States who have tested all other twenty-five cent black inks ❧ It is suitable for super stock, and for a good all-around commercial black it has no equal ❧ It is black, lustrous and quick drying, requiring no slip sheets A trial order will convince you, as it has hundreds of others ❧ ❧ ❧ Send us your order today

This insert is printed with Boxer Black

Judge the quality for yourself

The Big Four Printing Ink Company

Main Office and Factory
BATTLE CREEK, MICH.

Branch Offices
380 Dearborn Street . . . . . CHICAGO
606 Commercial Place . . NEW ORLEANS

This Insert is Printed with Boxer Black (25c per lb.) and Bright Job Red ($1.00 per lb.)

Boxer Black 25 Cent BOOK INK

ITS EFFECT ON HALF-TONES

Can You Duplicate It for the Price?

The working qualities of our Half-Tone Brown equal to our Blacks

⚜

You will never have any trouble with our Browns filling cuts

⚜

Something unusual you will admit



Our superior facilities and modern equipment enable us to produce such satisfactory working inks

⚜

No variation in the working qualities of our Inks

⚜

Always the same

¶ One trial of Boxer Black will convince you of its superior qualities.

¶ It will save you Time and Money.

¶ Remember, with your first order of $25.00 you will get one of our Printer's Proofing Cases FREE, containing 16 different colored inks.

THE BIG FOUR PRINTING INK COMPANY

Main Office and Factory, BATTLE CREEK, MICH.

BRANCH OFFICES: 380 Dearborn St., CHICAGO; 606 Commercial Place, NEW ORLEANS

This sheet was run as a work-and-turn, with ink from our regular stock of Big 4 goods, and was printed without slip-sheeting. Gage Printing Co., Ltd., Battle Creek, Mich.

ELECTRO-TINT ENGRAVING COMPANY



(Progressive proofs furnished with each reproduction.)

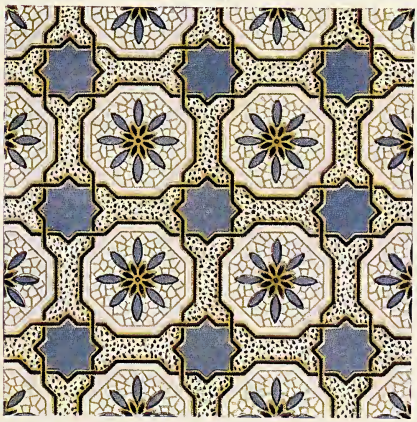
Any good printer can successfully handle our plates.











These illustrations were produced with three printings and sell goods better than a salesman.

Electro-Tint Engraving Co.

1227-1229 Race St., Philad'a, U.S.A.

HIGH-GRADE COLOR ENGRAVINGS

SEE OTHER SIDE

Do You Realize

THE NECESSITY OF USING
ONLY THE

Best Printing Plates?

Inferior Plates Cause:

INTRICATE MAKE-READY
LOSS OF TIME IN PRESS-ROOM
EXTRA COST OF PRODUCTION
DELAYS OF DELIVERY
POOR WORK
LOSS OF TRADE

We Make Superior

Half-tones
Zinc Etchings
Duographs
Three- and
Four-color
Process Plates

OUR STAFF OF SKILLED ARTISTS ARE
PRODUCERS OF THE HIGHEST GRADE

ADVERTISING IDEAS

Send 50 cents for Album of Three-Color Stock Plates, suitable for Calendars, Blotters, Inserts, etc.

ELECTRO-TINT ENGRAVING CO.

Nos. 1227-1229 RACE STREET, PHILADELPHIA, PENNA.

SEE OTHER SIDE

THE INLAND PRINTER



PRICE 20 CENTS APRIL 1906 VOLUME XXXVII NO.

C. B. Prescott, Treas.
T. Henry Spencer, Asst. Treas.

Valley Paper Co.

Manufacturers of
Chemically Pure
PHOTOGRAPHIC PAPER
For Platinum Printing, Bromide Printing, Solar Printing,

Holyoke, Mass., U. S. A.

"Valley Paper Co. No. 1 Bond 1906"
No. 1 Bond Regular List

"Commercial Bond 1906"
One-half Regular List

"Valley Library Linen"
For High-grade Papeteries

"Valley Paper Co. Linen Ledger 1906"
A Strictly No. 1 Ledger

"Commercial Linen Ledger" } Lead all the
"Our Ledger" } No. 2 Ledgers

"French Linen," wove and laid
Cream Laid Linen and White Wove Bond
The Foremost of No. 1 Linens

"Old English Linen and Bond"
Standard for Fine Commercial Work

"Congress Linen and Bond"
The best low-priced Linen and Bond made

"Old Valley Mills 1906" Extra-superfine

"Valley Paper Co. Superfine"
As good as the best

"Valley Forge" Flats Extra-fine quality

These Papers are unsurpassed for quality and uniformity. Samples cheerfully furnished.

Holyoke, Mass., U. S. A.

Henry Lindenmeyr & Sons

An excellent quality at a reasonable price

BROOKDALE LINEN BOND

Wove and Crash Finish—Carried in stock in white and eleven colors

Paper Warehouses

32 to 36 Bleecker Street
20 Beekman Street
New York



THE SAFETY MAILING CARD
Unequaled for mailing enclosures *flat*

SAFETY MAILING CARDS

are just the thing for mailing calendars, advertising novelties, pictures and other printed and lithographed matter *flat*. They consist of a stout sheet of "Cellular" Board to which is attached a manila envelope of excellent quality. They protect contents perfectly, are very cheap, save postage, and give absolute satisfaction. Write for estimates, stating accurate size of enclosure.



"CELLULAR" BOARD

for mailing or expressing electrotypes, engravings, small packages of type, books, or any kind of merchandise. Supplied in any size and quantity, or made up into light, inflexible wrappers to suit any requirement. ¶ We wish to get in touch with printers, engravers, electrotypers, bookbinders, publishers, advertising men, etc., or with merchants in any line shipping goods that need proper protection in transit, and invite correspondence.

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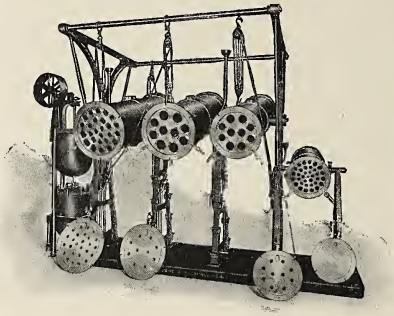
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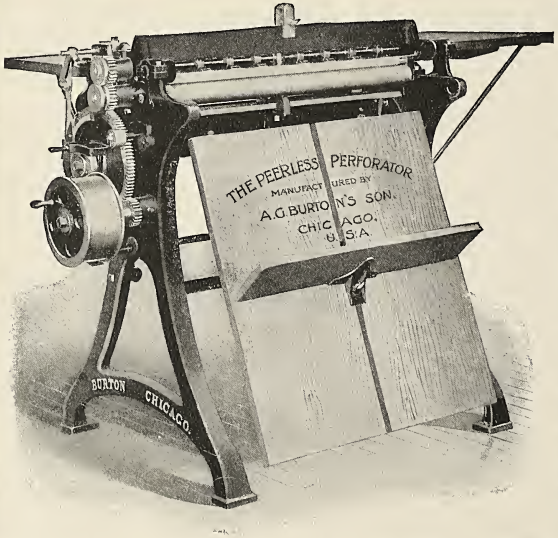


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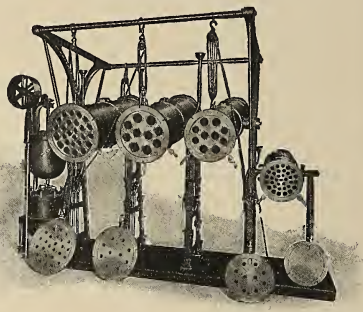
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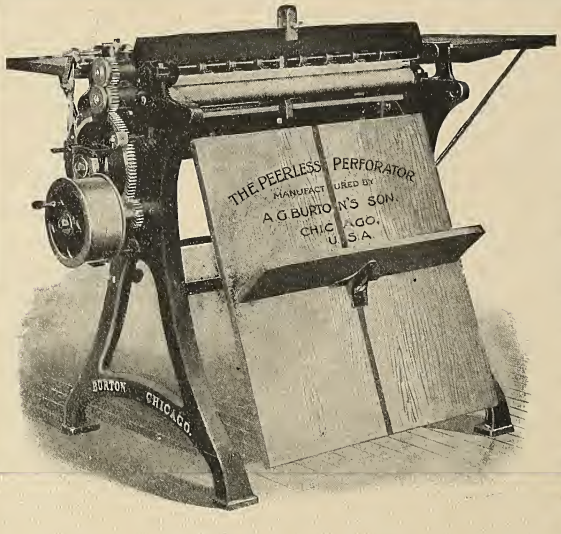
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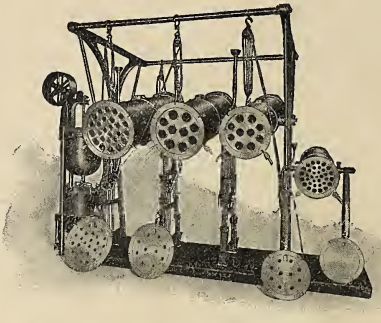
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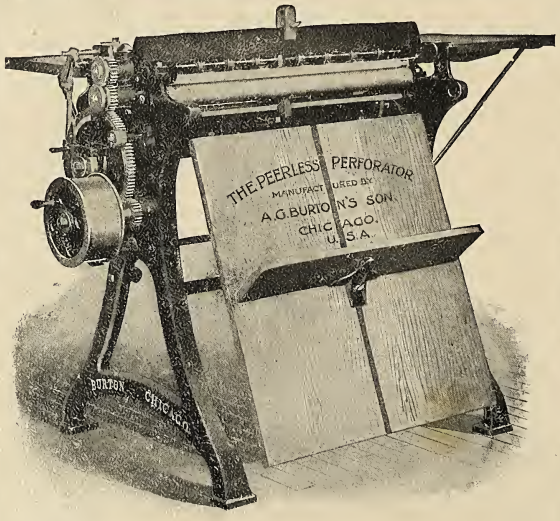
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